

We All Lost / The Man Who Got Lance / Poll Me By Joel Stein

# TIME

## REINVENTING

# COLLEGE

*A Special Report on Higher Education*

BY AMANDA RIPLEY

• The • **OUR EXCLUSIVE POLL** •

**HARVARD** **80%** THINK COLLEGE ISN'T  
WORTH THE MONEY

OF THE

INTERNET

**\$900**

BILLION  
IN COLLEGE

WHY  
**Blackboards**  
STILL MATTER

**FREE**  
**COLLEGE**  
for EVERYONE

1 PROFESSOR

IN THEIR OWN WORDS:

**BARACK OBAMA**  
**& MITT ROMNEY**  
ON HOW to FIX HIGHER ED

now there's four.  
the merrier the more.



Options shown.

prius plug-in

prius c



©2012 Toyota Motor Sales, U.S.A., Inc.



prius v

prius

**prius family**  
toyota.com/priusfamily

# TIME

VOL. 180, NO. 18 | 2012

## 4 | Editor's Desk

### BRIEFING

## 7 | Verbatim

## 8 | LightBox

Endeavour goes home

## 10 | World

Saving Malala  
Yousafzai; Colombian  
peace talks

## 14 | Nation

Mark Halperin  
on the path to the  
White House

## 15 | Economy

The true cost of  
celebrating Halloween

## 16 | Sports

The guy who busted  
Lance Armstrong

## 18 | Health & Science

Meningitis and the  
risks of having drugs  
custom made

## 19 | Milestones

Remembering Arlen  
Specter

### COMMENTARY

## 20 | Worldview

Fareed Zakaria on the  
energy boom

## 24 | In the Arena

Joe Klein on who  
won the town-hall  
debate

### ON THE COVER:

Illustration by  
Dana Tanamachi  
for TIME



College courses go online—no classroom necessary.  
Photograph by Ilona Szwarz for TIME

### FEATURES

## 26 Demanding a Vote

How some politicians and citizens have  
fought back against laws designed to keep  
voters from the polls  
by Michael Grunwald

### SPECIAL REPORT

## Reinventing College

31 All bang, no bucks: Will free Internet  
courses upend the traditional campus?  
by Amanda Ripley

42 Barack Obama and Mitt Romney detail  
their plans for education

44 Six key leaders weigh in on how to curb  
soaring tuition

### THE CULTURE

## 64 | Pop Chart

Artsy cups at  
Starbucks; a Q&A  
with Taylor Swift; the  
*Onion* writes a book

## 66 | Art

In Ai Weiwei's  
retrospective, art  
meets activism

## 70 | Movies

*Cloud Atlas* and  
the quest to film  
unfilmable books

## 72 | Movies

Scoring James Bond's  
hits and misses

## 74 | The Awesome

Column  
Joel Stein polls the  
nation about himself

## 76 | 10 Questions

Native American  
poet Sherman Alexie

Daniel Craig as  
James Bond, page 72



TIME (ISSN 0040-781X) is published weekly, except for two issues combined at year-end, by Time Inc. Principal Office: Time & Life Building, Rockefeller Center, New York, NY 10020-1393. Periodicals postage paid at New York, N.Y., and at additional mailing offices. Canada Post Publications Mail Agreement No. 40110378. Return undeliverable Canada addresses to: Postal Str. A, P.O. Box 4322, Toronto, Ont., M5W 3G9. GST #R888381621RT0001. © 2012 Time Inc. All rights reserved. Reproduction in whole or in part without written permission is prohibited. TIME and the Red Border Design are protected through trademark registration in the United States and in the foreign countries where they are used. TIME is a registered trademark of Time Inc. All other marks and names are trademarks of their respective owners. If you are dissatisfied with a recent issue, we have no further obligation unless we receive a corrected address within two years. Postmaster: Send address changes to P.O. Box 62120, Tampa, FL 33662-2120. CUSTOMER SERVICE AND SUBSCRIPTIONS—For 24/7 service, please use our website: [www.time.com/customerservice](http://www.time.com/customerservice). You can also call 1-800-843-TIME or write to TIME, P.O. Box 62120, Tampa, FL 33662-2120. Mailing list: We make a portion of our mailing list available to reputable firms. If you would prefer that we not include your name, please call, or write us at P.O. Box 62120, Tampa, FL 33662-2120, or send us an e-mail at [privacy@time.customersvc.com](mailto:privacy@time.customersvc.com). Printed in the U.S.

# Let's unlock the brilliance of 10,000 skilled teachers.

By 2020, the National Math and Science Initiative's UTeach program will have helped more than 10,000 undergrads earn both a degree in math or science and a teaching certificate. They'll do it without spending extra time or money. Those highly skilled teachers will reach an estimated 4 million students nationwide. Join ExxonMobil in supporting programs like UTeach that raise the bar in math and science. Let's invest in our teachers so they can inspire our students. Let's solve this.<sup>SM</sup>

[exxonmobil.com/letsolvethis](http://exxonmobil.com/letsolvethis)

**ExxonMobil**

Taking on the world's toughest energy challenges.<sup>SM</sup>



## Editor's Desk



24%

76%

## Why Education Is The Answer





EXACTLY 150 YEARS AGO, IN the midst of the Civil War, Abraham Lincoln signed the Morrill Act, which launched the great and enduring public university system in America. Even during the most wrenching conflict in our history, Lincoln was thinking of the future. This week, in the midst of a taut presidential election, we look to the future of higher education in America. Both candidates weigh in: we have essays from President Obama and Governor Romney. In our special report (deftly overseen by senior editor Julie Rawe), we take a look at the challenges facing higher education. I'd argue that higher education is in large part the foundation of American exceptionalism and we weaken it at our peril.

To analyze the problem is not sufficient; we must find answers. To do that, TIME, along with the Carnegie Corporation of New York and the Bill & Melinda Gates Foundation, is hosting a daylong conference on Oct. 18 at the Time Warner Center with more than 100 leaders in education to discuss solutions to the critical problems of cost, access and quality in higher education. The Gates Foundation has been doing important work addressing all these issues, but the driving force behind this conference is the president of Carnegie, Vartan Gregorian, who is not simply a great educator but also a visionary American leader working to make our future as bright as our past. In the coming weeks and months, we will report on the ideas, policies and solutions that we generate.

Click

*Richard Stengel, MANAGING EDITOR*

WRITE TO US

Send an e-mail:  
[letters@time.com](mailto:letters@time.com).  
Please do not send  
attachments.

Send a letter to: **TIME Magazine Letters, Time & Life Building, New York, NY 10020.** Letters should include the writer's full name, address and home telephone and may be edited for purposes of clarity and space.



THE CONVERSATION

**'Eight percent is a heck of a number,'**

said financier **Steven Rattner** on MSNBC, defending China's still robust growth rate amid talk of an economic slowdown. Rattner and panelists were debating "**Big Brotherhood**," TIME's Oct. 22 cover story on China's impending leadership change. The piece, which explored the ways in which the country remains repressive, was quickly banned from Chinese newsstands but prompted some readers to urge patience. "Unfree compared to what standard?" commented Lamogung on our website. "No country can compare to China due to its sheer size and complexity. These things take time." Meanwhile TIME's photos of VP hopeful **Paul Ryan**'s workout routine, taken last year when Ryan was a runner-up for Person of the Year, inspired everything from comedy (**Jimmy Fallon** likened Ryan in one image to Screech from TV's *Saved by the Bell*) to Web memes to genuine admiration. "He had some big biceps in TIME magazine," noted ABC's **George Stephanopoulos**. "He's in good shape."



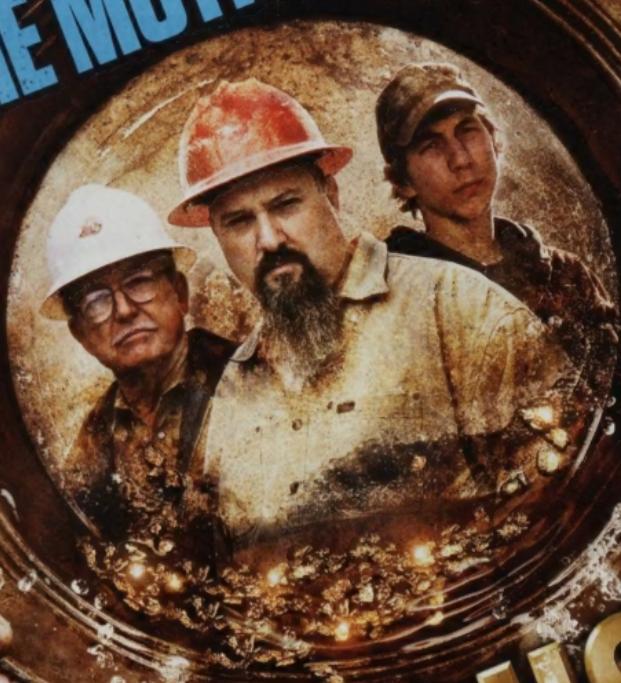
Up Next

On Oct. 22, TIME.com presents our annual list of the smartest blogs or topics ranging from gadgets to fashion. You can find Awkward Family Photos (a clearinghouse for cringe-worthy snaps) and the rest of the 25 Best Blogs at [time.com/bestblogs](http://time.com/bestblogs). And on Oct. 23 at 11 a.m. E.T., please stop by TIME's Google Hangout to watch our politics team chat about the final presidential debate, at [plus.google.com/+TIME](http://plus.google.com/+TIME).



Please recycle  
this magazine and  
remove inserts or  
samples before  
recycling.

SOMEONE HITS  
THE MOTHER LODE!



# GOLD RUSH

ALL NEW SEASON PREMIERES FRIDAY OCT 26 • 9/8C

Discovery

# Manage your **TAX EXPOSURE** and save for retirement.

## The Fidelity Personal Retirement Annuity<sup>®1</sup>

Discover a low-cost, tax-deferred way to help manage your tax exposure while you save for retirement.

**Talk with a Specialist today.**

**800.468.6157**  
[Fidelity.com/SaveMore](http://Fidelity.com/SaveMore)

Turn here.



Retirement | Planning | Trading | Investments

<sup>1</sup>Fidelity Personal Retirement Annuity<sup>®</sup> (Policy Form No. DVA-2005, et al.) and, for New York residents, Personal Retirement Annuity (Policy Form No. EDVA-2005, et al.) are variable annuities. Fidelity Brokerage Services, Member NYSE, SIPC, and Fidelity Insurance Agency, Inc., are the distributors.

Fidelity does not provide legal or tax advice. Always consult an attorney or tax professional regarding your specific legal or tax situation.

Taxable amounts withdrawn are subject to ordinary income tax, and, if taken before 59 1/2, may be subject to a 10% IRS penalty.

**Fidelity annuities are issued by Fidelity Investments Life Insurance Company (FIL) and in New York, by Empire Fidelity Investments Life Insurance Company,<sup>®</sup> New York, N.Y. FIL is licensed in all states except New York. A contract's financial guarantees are subject to the claims-paying ability of the issuing insurance company.**

Annuities are subject to investment risk. Your principal value may decline.

Before investing, consider the investment objectives, risks, charges and expenses of the annuity and its investment options. Call Fidelity or visit [Fidelity.com](http://Fidelity.com) for a free prospectus and, if available, summary prospectus containing this information. Read it carefully.

© 2012 FMR LLC. All rights reserved. 607993.1.0

# Briefing

## 'I'm the President and I'm always responsible.'

**1. BARACK OBAMA**, during the presidential debate with Mitt Romney on Oct. 16, addressing the attack on the U.S. consulate in Benghazi, Libya; the previous day, Secretary of State Hillary Clinton had assumed blame

**'I think you know that these last four years haven't been so good as the President just described.'**

**2. MITT ROMNEY**, during the same debate, after Obama ticked off a list of his first term accomplishments, including health care and Wall Street reforms

## 'I'm coming home'

**3. FELIX BAUMGARTNER**, Austrian daredevil, before skydiving 24 miles from the stratosphere; at one point, he was traveling at 833.9 m.p.h.—fast enough to break the sound barrier

**'We can't not engage. We cannot retreat.'**

**4. HILLARY CLINTON**, on how the U.S. must proceed in Libya

## 'I am a mild man, a tolerant man with great capacity to understand others.'

**5. RADOVAN KARADZIC**, former Bosnian Serb leader, at his trial before an international tribunal in the Hague for alleged war crimes committed from 1992 to 1995



**\$873,000**

Opening auction bid on eBay to buy a 10,000-sq.-ft. replica of Disneyland's Haunted Mansion



**\$1.1 TRILLION**

U.S. budget deficit for 2012 (down from \$1.3 trillion in 2011), marking the fourth consecutive year the figure has topped \$1 trillion

**100,363**

Syrians who have sought refuge in Turkey; officials expressed concern about accommodating more



**4 MILLION +**

Donors to Obama's presidential campaign, a new record

Briefing

# LightBox



## The road home

People gather to watch the space shuttle Endeavour make the 12-mile (19 km) journey from Los Angeles International Airport to the retired craft's new home at the California Science Center

Photograph by Chris Carlson—AP

lightbox.time.com



# World

## RUSSIA

'The government is not at war with smokers. But we are making a stand.'

**DMITRI MEDVEDEV**, Russian Prime Minister, *voicing support for a proposed public-smoking ban, which would take effect in the next two years; right, now, roughly 1 in 4 Russians smokes*



Children in Karachi hold a vigil for Malala

## The Meaning of Malala

**1 PAKISTAN** More than a week after Malala Yousafzai, a 14-year-old blogger and activist, was shot in the head while riding in a van on her way home from school on Oct. 9, Pakistan was not done being angry. Demonstrators in all the country's big cities continued to denounce the Taliban's brazen attack on the girl and two of her classmates in northwestern Pakistan's Swat Valley. Malala, who is in stable condition after surgery, was flown to the U.K. on Oct. 15, and her British doctors say she could make a good recovery after several weeks of treatment. She leaves behind a nation trying to understand why, despite years of fighting the Taliban, extremists can still attack children with impunity. Bound by outrage, Pakistan seems united—a rare occurrence. "The mood of the people is unforgiving," says Shaukat Qadir, a retired Pakistani army brigadier. "We have to do something."

But what? There is little agreement on that. Within hours of the attack, the Pakistani Taliban claimed responsibility, calling Malala's advocacy for children's rights and education "pro-West." As the anti-Taliban protests continue, another wave of outrage is gathering force. Islamist groups and hard-line nationalists say the international publicity lavished on Malala's case is diverting attention from the greater injustice in Pakistan—the U.S.

campaign of drone strikes against militants on the Pakistan-Afghanistan border, which, by some accounts, has killed hundreds of civilians, including 176 children, since 2004.

"Everybody is crying for Malala, but nobody is crying for the other Malalas," says one prominent politician in South Waziristan, a border area in the cross-hairs of the conflict. The cycle of violence and recrimination makes decisive action against Malala's attackers unlikely.

The plight of civilians in this region had the world's attention not long ago. Militants controlled the picturesque Swat Valley, where Malala was born, when she began blogging for the BBC in 2009 about living under Taliban rule. She was one of the few local voices speaking out about the devastating impact of extremism on the lives of women and girls. On Jan. 14, 2009, the day before a Taliban ban on education took effect, Malala wrote, "Since today was the last day of our school, we decided to play in the playground a bit longer."

—KRISTA MAHR/ISLAMABAD

## UAE

**\$1 billion**

Expected construction cost of the Taj Arabia, a monument replicating India's Taj Mahal at four times the original's size, slated to be unveiled in Dubai by 2014



## Give Them Freedom?

**2 U.K.** Economic troubles are driving a secessionist renaissance in Europe, with popular support for would-be breakaway states surging in polls and on the streets. Scotland set an example Oct. 15 by signing an agreement with the U.K. to vote on independence by the end of 2014. Will other European regions follow suit?



## Ready to Shoot

**3 | IVORY COAST** An Ivorian soldier stands with his weapon by a market in the commercial capital, Abidjan, shortly after a clash between armed forces and peddlers who were allegedly blocking traffic. The soldiers have tougher battles ahead: alongside other West African nations, Ivory Coast may soon commit troops to a military intervention in neighboring Mali, where rebels and Islamist militias affiliated with al-Qaeda have seized roughly half the country.

## The Long Road to Peace

**4 | NORWAY** In Oslo, Colombian officials and the rebel FARC movement sat down for peace talks aimed at ending Latin America's oldest insurgency. Bogotá's recent military gains against FARC, as well as the less hard-line approach of new President Juan Manuel Santos, offered renewed hope that political dialogue can bring the leftist guerrillas, who once controlled large tracts of the country, out of the jungle. But there are three thorny problems Colombia faces as it untangles itself from a half century of conflict:



### LAND RIGHTS

A struggle that began in the 1960s in response to the injustices of Colombia's vastly unequal society has left millions displaced and deepened the hardships of life for the nation's campesinos.



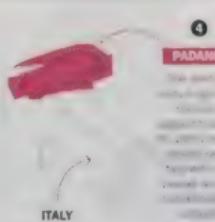
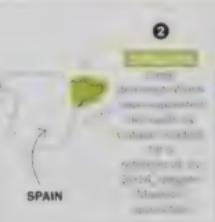
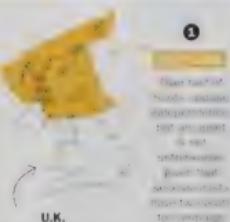
### DRUG TRADE

FARC and rival right-wing paramilitary organizations have long profited from the country's illicit narcotics trade. Despite concerted U.S. efforts, Colombia remains the cocaine capital of the world.



### JUSTICE

Five decades of killings, torture and kidnappings have produced countless victims. Whatever the peace talks yield, a long process of reconciliation will be needed to redress the abuses of the past.



## Letting Go Of the Past

**5 | CUBA** Starting early next year, the Cuban government will eliminate the requirement that citizens who are planning to travel to other nations obtain an exit visa, official permission to go abroad. A notice in *Granma*, the island nation's Communist Party newspaper, stated that once the policy takes effect on Jan. 13, Cuban citizens will also no longer have to present a letter of invitation to visit another country. They will have to show only their passport and visas for their destination countries. President Raúl Castro pledged last year to get rid of the widely resented exit visas. The decision to do so is a sign that the party is answering calls for reform without surrendering much power. October marks the 50th anniversary of the 13-day Cuban missile crisis, during which tensions between the U.S. and the Soviet Union almost exploded into nuclear war.

# EVOLUTION of COMMUNICATION

**It just keeps getting better.** Years ago, you needed a hammer and chisel to get your message across. Nowadays, all it takes is a few taps to share your thoughts with thousands of followers. Vaseline® understands how a good thing can always get better. After all, for over 140 years, we have been committed to finding new ways to keep improving skin care. Introducing the next generation of Vaseline® lotions that feel good and do good for your skin. Now with pure naturals and multi-layer moisture, our quick-absorbing formulas give you soft, healthy skin without any greasy feel. What could be better than that?

## 3200 B.C.

In the Fertile Crescent along the Nile river, cryptic messages set in stone tablets are proof of man's early love of communication.



## 1870s

The telephone is invented and the world is quickly wired.



## 1930s

From the famous "fireside chats" to adventure programs, radio adds "mass" to "communication."



## 2000s

Video calls put a face to the voice.



## B.C.

## 2012



## 1920s

Initiated in the mid-nineteenth century, telegrams become widespread for communicating to far-flung places.

## 1950s

The typewriter goes portable, allowing novelists to further the American road trip story.



## 1990s

Email arrives and forever revolutionizes the way the world connects.



## Today

Spreading the word by blog, by Tweet or by way of other social media makes communication faster and more efficient than ever.



**LEARN MORE ABOUT THE EVOLUTION OF VASELINE!**  
Visit [vaseline.com](http://vaseline.com) to see how we're better than ever.



Unilever

# A NEW BEGINNING

Our new formula feels good on skin while doing good for skin.



Introducing the next generation of Vaseline® Total Moisture® lotion, a clean feeling moisturizer for soft skin. Now with pure oat extract and Straly's-3™ multi-layer moisture, our new formula infuses moisture deep down\*, absorbing quickly to feel good and do good for skin.

VASELINE®. NOW BETTER THAN EVER

# Nation



## Either One Can Win What Romney and Obama need to do to make it happen

By Mark Halperin

### DELIVER A SMART CLOSE

In the final days, the GOP will be able to spend as much on TV ads as Obama. But the key is quality, not quantity. Team Romney needs to create commercials that break through the clutter.

### NAIL THE COMMANDER-IN-CHIEF AUDITION

Romney has so far done a serviceable job of standing toe to toe with the incumbent. He must use the third debate to cement the idea that he is a reasonable and reliable foreign policy crisis manager.

### MAKE ANOTHER RUN AT THE ECONOMY

Voters still don't give either candidate a decisive edge on the economy. With a major speech or long-form advertising, the former venture capitalist must convince the electorate that he's better equipped to turn things around.

### PLAY THE MARGINS

Romney will be wiped out among African-American voters and can make only so many inroads with Hispanics. A Romney victory requires winning about 60% of whites while also snagging more than 30% of the Latino vote.

### FLIP THE ELECTORAL COLLEGE ADVANTAGE

For Romney, Ohio is the difference between long shot and commanding lead. If he can combine that battleground state with a Southern sweep of Florida, North Carolina and Virginia, he'd need just one of five remaining contested states to win the big prize.

### KEEP YOUR HEAD IN THE GAME

A forceful Obama, assertively trying to keep his job, turned up at the second debate. Americans want a President who will lead the nation into combat against all enemies, foreign and domestic.

### DEFINE THE OTHER GUY

The President and his admirers must go back to what worked all spring and summer: blasting Romney as an out-of-touch plutocrat whose policies would favor rich people, not the middle class.

### FLOOD THE ZONE

Superstar surrogates Joe Biden, Michelle Obama and Bill Clinton, along with celebrity supporters like Bruce Springsteen, will draw more news coverage and bigger crowds than anything the Republicans can muster.

### THREE YARDS AND A CLOUD OF DUST

The Obama campaign has spent years building history's most extensive voter-outreach machine: it includes 5,000 local events to get out the vote and hyperlocal online ads about polling places.

### GO FOR AN ELECTORAL COLLEGE CHECKMATE

Forget how the other 48 states get divvied up. If Obama can win either Virginia or Ohio, he is virtually assured of four more years.

#### ELECTORAL VOTES TO WIN

**270**

# Economy

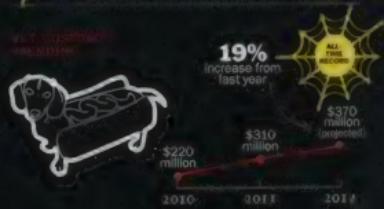
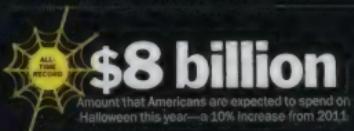
## More Trick than Treat Why this year's Halloween will be the priciest ever

By Josh Sanburn

HOW'S THIS FOR A LATE-OCTOBER SHOCK: AMERICANS ARE EXPECTED TO spend a record \$8 billion on Halloween-related products and activities this year, up 17% from 2011. (For reference, that's enough to buy almost 2 billion pumpkins, 3 billion bags of candy corn or the best Donald Trump costume ever.) What's driving that increase? Americans' expanding pocketbooks, for one. As the economy rebounds, big Halloween retailers are pumping up prices, hoping customers will be less stingy with their discretionary income. "It's this new sense of normal," says Kathy Grannis of the National Retail Federation. "People know that prices have increased for the last couple of years, and it's something they've built into their lives."

There's more at play here, though. In particular, the cost of an average pumpkin has risen to \$4.79, thanks largely to this year's widespread drought. Spending on pet costumes—the ultimate in do-we-really-need-that extras—is projected to hit \$370 million this season. And with the presidential election, the Olympics and the recent wave of viral-video-stars, costume inspiration is remarkably high, says Babacar Dious, a manager at Ricky's, a New York City-based costume chain. "This year we started seeing people come in mid-October rather than waiting a few days before Halloween," he says, noting that shoppers are loading up on election-year masks, Psy-like outfits and a healthy dose of sexy garments.

Americans are also splurging on more-bizarre events as the holiday expands. What began as a one-night kiddie affair for trick-or-treating "has really morphed into a monthlong celebration of fall," says Grannis. In addition to the standard haunted houses, there are now Halloween-themed wine tours in California, Halloween dog parades in New York, zombie walks in numerous U.S. cities and even an Al Capone Estate Prohibition Halloween party in Florida—for upwards of \$10,000 a ticket. Now that is scary.



# Sports

## Armstrong's Ahab This anti-doping cop brought down a cycling icon

By Bill Saporito

TRAVIS TYGART'S FIRST OFFICE AT THE United States Anti-Doping Agency (USADA) had a poster of Lance Armstrong in it featuring a version of this quotation: "Everybody wants to know what I am on. What am I on? I am on my bike, busting my ass six hours a day."

But over the past four months, Tygart, a lawyer who is now the CEO of USADA, has been the one doing the busting, driven by the same relentlessness and competitiveness that are Armstrong's hallmarks. Tygart has redrawn the heroic cyclist—cancer survivor, philanthropist and seven-time Tour de France winner—as a poster boy for cheating. Citing Tygart's "seemingly insurmountable evidence," long-time Armstrong sponsor Nike dropped him. The cyclist resigned as chairman of Livestrong, the cancer-treatment advocacy organization he co-founded. (Disclosure: I am a Livestrong donor.)

In June, Tygart concluded what seemed to be a never ending investigation of Armstrong (it began in spring 2010) by charging him with doping, orchestrating a drug ring for his U.S. Postal Service team from 1998 to 2005 and even strong-arming a potential witness during a Tour stage. "It was a culture of drug use, and the moral creed was, You do it if you want to be on this team, and if you don't, the community is going to attempt to destroy you," Tygart tells TIME from his Colorado Springs office.

Armstrong, who has denied doping charges for more than a decade and who never flunked a drug test, responded in July with a lawsuit accusing Tygart of leading an unconstitutional witch hunt. When that suit was tossed from federal court, he announced that he would not contest the allegations. "At every turn, USADA has played the role of a bully, threatening everyone in its way and challenging the good faith of anyone who questions its motives or its methods,



### Tygart broke the case by getting cyclist and Armstrong foil Floyd Landis to tell all

all at U.S. taxpayers' expense," he said.

In essence, the two men have accused each other of team tyranny, doing whatever serves their cause regardless of consequences. Tygart's riposte has been to unleash an avalanche of evidence, from e-mails and bank records to eyewitness accounts, drawing inferences of guilt that lacked any nuance or ambiguity. It was, in USADA's term, a "reasoned decision" that did not rely on drug tests. He lined up 11 former cycling teammates to testify against their team leader. There are 200 pages of detailed allegations of secret blood-doping sessions, EPO use, manipulation of drug tests and evasion of authorities. "So ends one of the most sordid chapters in sports

history," Tygart concluded.

Not quite, since the International Cycling Union, which governs the sport globally, can appeal the charges. And what certainly hasn't concluded is the debate over whether Tygart's pursuit of Armstrong was a gratuitously expensive obsession—do Americans really care about bike races, in France, more than a decade ago?—or the pervasive culture of cheating in cycling and other elite sports needed to be crushed at any cost. "It's not personal," says Tygart. "That totally misses the point. It's about a mission and the belief that the rules should be upheld and that athletes want to compete clean and should have that right."

Tygart comes to that view as a lawyer rather than an elite athlete. Although he played sports in high school and coached for several years when he was a high school teacher in his native Jacksonville, Fla., it was while working as a public defender that he first understood why people break rules. "You obviously saw that people put in bad situations make bad decisions sometimes." He says USADA has empathy for athletes who feel compelled by teammates to dope. That's one reason, he says, that Armstrong's former teammates got off with six-month suspensions—a slap on the wrist, claim critics, for ratting out Armstrong. Says Tygart: "We called him and talked to his four lawyers and asked him to come in and sit down with us and be truthful, and he refused. He made it about himself. He refused to be part of the solution."

### The Level Playing Field

USADA IS AN INDEPENDENT AGENCY CREATED in 2000 to take over anti-doping operations for the U.S. Olympic Committee, allowing it to avoid any potential conflicts of interest. It was created during a particularly ugly period when U.S. track athletes were being busted regularly. One of its first celebrity cases involved sprinter Marion Jones. Terry Madden, USADA's first boss, faced the same kind of "witch hunt" accusations, says Norm Bellingham, a former USOC operating officer. "Nobody put Terry up on a pedestal for doing that," says Bellingham. For the same reason, he says, Tygart "swallowed pretty hard before going

**Cancer fighter**  
Leveraging his athletic  
credentials to bring attention  
to cancer research  
funds. **Stolen medals**



down that path with the cyclists."

But once on that path, he never veered. When the federal case against Armstrong folded without charges being filed, Tygart leaped in. And even if he didn't think it was personal, the Armstrong legal team did, mentioning him by name, calling him out. "We expect it. It's part of the job. We never like it," Tygart says. "We don't let it deter us."

He broke the case by getting cyclist and Armstrong foil Floyd Landis to tell all by convincing him that USADA would not protect anyone. "That was a big break in the code of silence," says Tygart. And then he did what every prosecutor worth his badge does: he used Landis as the wedge to turn other witnesses, including Armstrong's long-serving lieutenant, George Hincapie.

Tygart's high-profile, high-cost investigation again raises the issue of how much tax money—USADA gets some government funding—should be spent policing jocks. It's not against the law to cheat at sports. That's not a justification to ignore it, Tygart says, pointing to rationalizations that led to ethical breakdowns at athletic programs at Penn State and his alma mater, the University of North Carolina.

Tygart is not alone in seeing sport as something bigger than playing games—it teaches values, ethics, dedication to a larger goal—but if sports want to allow doping, fine by him. "If people want to change the rule, change the rule," he says. "If you want to go that route, that's the sport's decisions. Just stop the charade. At USADA, it's not a charade."

Olympic gold medalist Edwin Moses, a USADA board member and longtime anti-doping crusader, says athletes have always craved a level playing field—with a few notable exceptions. "There's really nothing unusual or special about this case. I've seen the baddest and biggest all come and go. Travis has done a fantastic job."

Armstrong has another term for that job: *hatchet*. "The toughest event in the world, where the strongest man wins. Nobody can ever change that. Especially not Travis Tygart," he stated in one response. But Armstrong currently stands banned for life from cycling and triathlons, his titles voided, his legacy shattered. And that is especially because of Travis Tygart. ■

# Health & Science

More than 200 cases of fungal meningitis have been reported in 22 states. The outbreak is believed to have been caused by a single batch of contaminated steroid injections compounded by a Massachusetts-based company.



## Meningitis Mess. The trouble with custom-made drugs

By Alice Park

**FOR WHAT'S NORMALLY A RARE INFECTION, FUNGAL** meningitis has been getting a lot of attention of late—and with good reason. In the past few weeks, health officials say, tainted injections of a pain-relieving steroid custom-produced by a Massachusetts-based company have triggered an outbreak of the disease in 15 U.S. states.

The company is a compounding pharmacy, a legitimate and often very useful operation that mixes special-order drugs at the request of doctors. The practice is growing as drug shortages and the awareness of allergies and adverse reactions to pharmaceutical ingredients increase. Typically a physician will write a prescription for a compounded drug that is free of preservatives or allergens like lactose, for example, or will request drugs in formulations not available commercially.

In these cases, patients pick up the prescription at the pharmacy and are aware that they're getting a compounded preparation. Sometimes in clinical settings, however, shelves will be stocked with a compounded variety because of shortages of the ordinary formulation. Compounded drugs are sometimes cheaper, making them even more attractive. In such situations, the patient and even the doctor may not be aware that a compounded drug is being used. That's the case with injectable methylprednisolone, the steroid tied to the meningitis cases.

The danger is that unlike other drugs, compounded products are not regulated by the Food and Drug Administration for safety and quality. Instead they are overseen by state pharmacy boards. Spurred by the meningitis cases,

however, Congress is exploring tighter regulations—too late for the meningitis victims but not too late to prevent future outbreaks.

247

Deaths of fungal meningitis traced to tainted steroid injections

19

Deaths linked to the contaminated shots

**Bespoke Pharmacy**  
A look at the  
most commonly  
compounded  
drugs

► **HORMONES**  
Estrogen and  
progesterone pills can  
be compounded into  
creams or made  
into more potent oil  
formulations cause  
ideological positions to  
divide women

► **THYROID**  
MEDICATIONS  
Compounded thyroid  
hormone can be made  
in patient-specific  
doses or free of pres-  
ervatives like cellulose, which  
can affect absorption  
of the drug

► **PAIN**  
MEDICATIONS  
Sterile spinal injections  
for neck and back have  
been in short supply  
recently, which drove  
manufacturers and clinics  
to stock compounded  
versions of the shots

► **ALLERGEN-FREE**  
DRUGS  
Some drugs contain  
allergens like lactose.  
Compounded versions  
can be made without  
the offending ingredients

► **FREE OR BETTER-TASTING DRUGS**  
Eliminating bad  
taste is a motivator  
and improving flavor  
is particularly for kids  
and those who have  
compounding

# Milestones

## DIED

**Arlen Specter.**  
 Longtime  
 Pennsylvania  
 Senator  
 By Edward Rendell

Arlen Specter was an incredible man. I'm not sure we will see another like him, and if we don't, America will be the worse for it. His persistence and tenacity were legendary. He was a fighter of epic proportions.

Three times he battled cancer. Twice, his incredible will brought the disease to its knees. Even after it returned again, his spirit was as strong as ever. Sadly, he did not win that last battle. He was 82 when he died on Oct. 14. But it was that same fighting spirit that caused him to never give up in his public life. From 1973 to 1978, he lost three straight elections but was undeterred. He ran again in 1980, finally winning, to start what became a great 30-year career as the longest-serving Senator in Pennsylvania history.

Arlen's independence defined him. He began as a Democrat, switched to the Republicans and, in 2009, the year before he finally lost his seat, returned to the Democratic Party. Whether as a Democrat or a Republican, he was a true moderate. He always put what he believed was right and best for the people he represented above the interests of his party.



As a member of the Senate Judiciary Committee, he opposed the Supreme Court nomination of Robert Bork but supported Clarence Thomas—both chosen by Republican Presidents. He knew when he voted for President Obama's stimulus bill that he was signing his political death warrant, but he deeply believed that the U.S. caught in the grip of the most significant recession since the Great Depression, desperately needed the relief it would provide.

That type of political courage is rare today, but Arlen

had it in abundance. In 2009, when members of Congress were in full retreat before the Tea Party, he held a town meeting in rural Lebanon County. The crowd was abusive, but he held his ground, defending his support for the stimulus and Obamacare with such vigor that the hecklers backed down. Arlen's independence, integrity and courage made him unique in today's political world, and that uniqueness will be sorely missed.

Rendell was the governor of Pennsylvania from 2003 to 2011

## DIED

**Norodom Sihanouk**

Filmmaking was a hobby of Cambodia's former King Norodom Sihanouk, and in life he played enough roles to fill a Hollywood epic. Sihanouk, who died Oct. 15 at 89, was at various times a teenage King, an independence leader, a Prime Minister, an exile and a peace negotiator. His benevolent image was marred by his cooperation with the murderous Khmer Rouge, whose regime left 1.7 million dead. When they came to power in 1975, they made him nominal head of state. He resigned the next year in horror. Years after they were brought down by a Vietnamese invasion, he helped broker a peace deal with Vietnam. In 1993 he returned to the throne for 11 years but could not script a happy ending for his nation. As he once said, "Unfortunately, I am not a god." —KAY JOHNSON



## DIED

George Whitmore Jr., 68, former murderer whose police-coerced confession to three killings in 1964 helped lead to the creation of Miranda rights.

## AWARDED

The Nobel Peace Prize, to the European Union, for promoting peace, democracy and human rights in Europe over six decades.

## DIED

Keith Campbell, 58, British biologist who in 1996 helped create Dolly the sheep, the first mammal cloned from a

fully developed adult animal.



## RESIGNED

Vikram Pandit, CEO of Citigroup, in an abrupt departure from the U.S.'s third largest bank; Citi executive Michael Corbat will become the new company head.

## STOLEN

Seven paintings by Picasso, Monet, Matisse and others, from the Kunsthall museum in Rotterdam; the works are worth hundreds of millions of dollars.

## BOUGHT

For \$20 billion, a 70% stake in Sprint Nextel, by Japanese tech company Softbank; the deal is the largest ever foreign acquisition by a Japanese company.

# Fareed Zakaria

## The New Oil and Gas Boom

The U.S. will soon be a net exporter of energy. That could change everything

**I**N THEIR SECOND DEBATE, BARACK Obama and Mitt Romney began with a spirited discussion on energy, during which they both agreed on the goal of making America more energy independent. This has been part of presidential rhetoric since Richard Nixon declared energy independence his Administration's aim. As it happens, regardless of who is elected President, a tidal shift is taking place in energy that will matter far more to America's energy future than any thing either candidate plans or imagines.

Over the past decade, America has experienced a technological revolution—not, as expected, in renewable energy but rather in the extraction of oil and gas. As a result, domestic supplies of new sources of energy—shale gas, oil from shale, tight sands and the deepwater, natural-gas liquids—are booming. The impact is larger than anyone expected.

**In 2011, for the first time since 1949,** the U.S. became a net exporter of refined petroleum products. Several studies this year have projected that by the end of this decade, the U.S. will surpass both Russia and Saudi Arabia and become the world's largest producer of oil and liquid natural gas.

Much of this opportunity comes from America's newfound ability to draw oil and gas from geological formations that just a few years ago geologists deemed impenetrable. The consequences of this breakthrough, both economic and geopolitical, are difficult to assess, but they range from a manufacturing renaissance in the U.S. to a decline of the geopolitical clout of Russia and the Middle East. Both would obviously be welcome news.

Romney has accused the Obama Administration of throwing obstacles in

the way of this boom. But so far they do not seem to have had much effect in slowing things down.

Of course, there are many on the left who believe that the Obama Administration has gone soft on the oil and gas boom and wish he had instituted more regulations. Fracking—the procedure by which shale oil and gas are extracted from deep rock formations stretching from the Appalachians nearly to the Rockies—remains controversial and arouses great passion. The Oscar-nominated documentary *GasLand* suggests that unlocked gas could burst out of people's taps, allegedly because of fracking. These charges are important, but they need more thorough investigation. Gas could end up in water pipes for a variety of reasons unrelated to fracking.

The Environmental Protection Agency is doing a comprehensive study of fracking, in part because we need to better understand the ramifications of this promising new extraction method. At this point it seems the greatest harm has come from small fracking operations that don't worry that an environmental problem could damage their brand name or profit margin. This makes it an industry tailor-made for intelligent regulation, because the big companies could well support clear rules that everyone, in a growing number of states, would follow.

The environmental impact of the natural-gas boom is already clear—and positive. The U.S.'s greenhouse-gas emissions in 2011 were 9% lower than in 2007. That's a larger drop than in the European Union, with all its focus on renewables. Why? A slow recovery and lagging demand is one answer. But the main reason is that natural gas is replacing coal everywhere as an energy source, and gas emits half as much carbon dioxide as coal. This



point is crucial. The conversation about natural gas cannot be had in isolation from the alternative. If we shut down all fracking and stop using shale gas, we will get all that energy by burning coal, which is the world's dirtiest fossil fuel—and is associated with mining deaths and respiratory illnesses as well.

**As the oil and gas boom progresses,** however, we should not forget that there is ultimately a better future for energy—namely wind, solar and other renewables—that provides unending supply, low price and almost no environmental damage. Most of these approaches continue to be plagued by the problems of cost and energy storage. (Bill Gates has calculated that if you took



all the world's batteries, they together would have enough capacity to store 10 minutes of the world's demand for energy. But they are gradually becoming competitive with fossil fuels.

The best bet for the U.S. is not only to expand oil and gas production but also to increase funding for research and development of new sources of energy. We need more breakthrough technologies and new designs and processes. But the government should also aid these nascent technologies by helping them achieve scale—which comes only from large deployment of these technologies. The U.S. government—the Department of Defense and then NASA—bought almost half of all the computer chips produced by Silicon Valley in the 1950s until

the industry could sufficiently lower its costs to be commercially viable.

We need to expect, even welcome, some investment failures. In venture capital, if you have eight failures and two big successes, that's a ratio to be proud of. But in government, one Solyndra means the whole program can die. Wind and solar are relatively small investments and needlessly controversial. The much larger question is nuclear energy. Should the government continue to provide subsidies for nuclear power? The emotional opposition to nuclear power has little to do with the data—many more people die in coal mines every year than have ever died in nuclear plants—but it does shape the political reality. Nuclear-power-plant construction remains stalled. But if

Americans want a constant supply of large amounts of energy with zero carbon emissions, nuclear is the only game in town right now.

The final piece of the energy puzzle should be the least controversial. Energy efficiency—drastically reducing the vast waste of energy in homes, offices, factories and vehicles—is good for greens and CEOs, for America and the world. Scientist turned activist Amory Lovins argues that the U.S. could grow its economy to 2.6 times its size, get completely off oil, coal and nuclear and use one-third less natural gas—all by 2050.

**Efficiency means a hundred different** things, like lighter (and yet sturdier) cars made from carbon fiber or similarly light and strong materials. It also means re-thinking how we build things: if considered as a separate nation, America's buildings alone are the world's third largest users of energy, after the rest of America and China and ahead of every other country! And it means simple modifications like this one in every hotel room in Europe: when you leave the room, taking the key out of the slot turns out the lights. It doesn't require any sacrifice in lifestyle to have the lights off when you're not in the room. McKinsey estimates that the U.S. could save more than \$130 billion annually—or \$1.2 trillion by 2020—just by maximizing efficiency.

Conservation reminds us that we should think about energy not as a problem but as an opportunity. As we search for new sources of economic growth, it's worth recalling how the information revolution of the 1990s restarted America by transforming so many aspects of life and work. Energy could have a similar transcendent effect. New technologies that provide cheaper and unconstrained supplies of energy could revolutionize the world. And the country that pioneers them will be on top.

FOR MORE ON THE FUTURE OF ENERGY  
TUNE IN TO FAZERED ZAKARIA'S NEW CNN SPECIAL  
GLOBAL LESSONS THIS SATURDAY MORNING  
POWERING AMERICA ON SUNDAY OCT. 21  
AT 8 P.M. AND 11 P.M. ET/PT

1865 U.S. CIVIL WAR ENDS

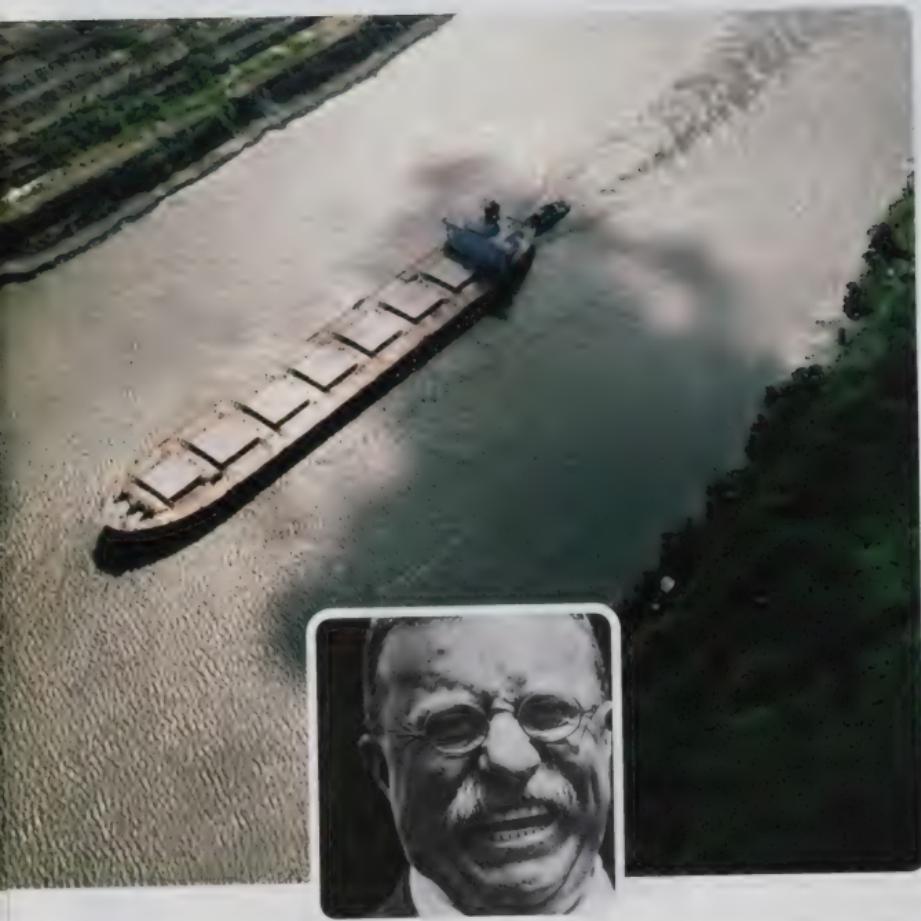
1904

CITI MEETS  
ROOSEVELT.  
ATLANTIC  
MEETS PACIFIC.

Citi, Citi and the stylized C logo are trademarks and service marks of Citigroup Inc.

1945 U.N. FORMS

1989 BERLIN WALL FALLS



At the time, many people thought digging a 51-mile canal through the jungles of Panama would be impossible. But, not Teddy Roosevelt. And when he needed help to finance this monumental and perilous undertaking, Citi was there to support him. Today, east is 8,000 miles closer to west. 50 vessels pass safely every day. And international trade is booming. For the past 200 years, we have helped individuals, communities, institutions and nations turn their ambitions into achievements. We're proud to look back on so much forward thinking.

Visit [citi.com/200](http://citi.com/200)

200 YEARS 

# Joe Klein



TO READ JOE'S  
BLOG POSTS, GO TO  
[time.com/swampland](http://time.com/swampland)

## A Campaign Without Heart

Obama and Romney's town-hall debate was about politics but not the people

THE SECOND PRESIDENTIAL DEBATE BETWEEN Mitt Romney and Barack Obama provided a very precise summary of the 2012 campaign so far. It demonstrated the candidates' strengths and revealed their weaknesses. And it illuminated the frustration that many informed voters have had with this race: Romney's proposals for the next four years are ridiculous; the President's are nonexistent.

**I've always believed that the town-meeting debate** is the most important event of the fall campaign. It has produced the most memorable moments: Bill Clinton's empathy, Bush the Elder's glance at his watch, Al Gore's stalking of Bush the Younger. It's where the public gets to see the candidates actually dealing with their fellow citizens. It is, I believe, the moment when a great many people viscerally decide which candidate they want to invite into their homes for the next four years.

But I must say: this year's edition was the most tepid I can remember, in terms of interaction between the candidates and the live audience. In 1992, Clinton hit his empathy mark not by taking the famous steps toward a woman who had asked an anguished question about the economy, but by asking *her* a question: How had the economy affected her? There were no such moments in 2012. Quite the opposite, in fact. At one point, the President pretty much ignored a question about gasoline prices. Indeed, the candidates seemed more concerned with each other than with the audience—and that too seems a metaphor for the 2012 campaign: our political system is increasingly self-absorbed, myopic and remote from the realities of daily life.

Overall, the President was the stronger candidate in the debate, as he has been for most of the year. He was a more forceful presence. It was, I think, his best debate

performance since his first confrontation with John McCain in 2008, when he turned McCain's perceived strength—foreign policy—into trigger-happy weakness. And once again, foreign policy provided him with his strongest moment: his splendid takedown of Romney's foolish attempt to turn the terrorist attack on the U.S. consulate in Libya into a political issue. "The suggestion," Obama said,



"that ... anybody on my team would play politics or mislead when we've lost four of our own, Governor, is offensive."

And then Romney's intermittent relationship with factual accuracy—another enduring feature of this year's campaign—allowed the President to take it a step further. Romney accused Obama of making a false statement when he claimed to have called the attack "an act of terror" the day after it occurred. Romney was dead wrong, a victim of his campaign's—and the right-wing media's—tendency to turn molehills into anthills. After the debate, the infantile pedants at Fox News were debating whether an act of "terror" was the same as a "terrorist attack." This is the sort of right-wing

casuistry that has marked not only the 2012 campaign but nearly every day that Obama has served in office.

The experts will say that Romney's Libya debacle came during the least watched portion of the debate, the last half hour, but it will be replayed in perpetuity. And the President also had strong moments in the first half hour: He took apart Romney's tax cut proposal, which is a masterpiece of supply-side flummery. He reminded voters of the extreme positions on women's issues and immigration that Romney took in order to win the Republican nomination. His low-key power contrasted well with Romney's occasionally stiff intensity.

Romney's best moments also reflected the strongest aspects of his candidacy. He returned to the economic argument he made at the very beginning of the campaign—before he was lured into the Tea Party fever swamp—that the President had been ineffective in pulling the country out of the Great Recession. Twice, he launched into powerful litanies of Obama's failures: persistent unemployment, slow economic growth, no long-term deficit-reduction plan, an increase in government regulation. These assaults were abetted by Obama's continuing failure to talk about what he would do during the next four years. Indeed, the President actually said at one point that he needed a second

term to continue the things he had started in the first term. Which raised the question, What if you're a voter who has had a lousy time the past four years?

**And that is where the bloodlessness of this race**, and these two candidates, is most jarring. This is a nation that has been rocked by recent events. It is begging for a plausible vision of the future. But this has been neither a big nor a truly national campaign. The vast majority of people in the vast majority of states are irrelevant to the process. The campaigns brag about their ability to microtarget voters. That is precisely what we've gotten: a whole lot of micro at a time when macro is sorely needed.

# Fill in the blanks about your COPD

Discuss this with your doctor. The more you tell your doctor about your COPD, the more he or she can help. Chronic Obstructive Pulmonary Disease includes chronic bronchitis and emphysema.



Since your last doctor's visit, have you... (check all that apply)

- had an increase in coughing?
- had an increase in mucus/phlegm or noticed a change in its color?
- had shortness of breath or difficulty breathing?
- had a flare-up or worsening of the COPD symptoms listed above, more than typical day-to-day variations?
- used an antibiotic or oral steroid (such as prednisone)? (# of times: \_\_\_\_\_)
- had a severe cold or flu?
- visited an ER, hospital, or urgent care?  
(specify reason: \_\_\_\_\_)
- discussed your breathing problems with another doctor?
- used a fast-acting/rescue inhaler more than usual?  
(# times/week: \_\_\_\_\_)
- missed activities or limited them due to breathing difficulties?  
(specify activities: \_\_\_\_\_)

List all COPD medications you are taking:

---

---

---

- I'm interested in finding out what more I can do for my COPD.



GlaxoSmithKline

©2012 The GlaxoSmithKline Group of Companies. All rights reserved.  
Printed in USA. AD5876R0. September 2012

Learn more about COPD at [copd.com](http://copd.com)

**VOTER ROLLS**

When registration ended Oct. 9, about 7.9 million Ohioans had registered to vote, down from 8.2 million four years ago. Barack Obama won the state in 2008 by 263,000 votes, or 4.6 percentage points.

**COURT BATTLE**

Republican officials in 15 states joined Ohio's attorney general in asking the Supreme Court to ban that state's early voting on Nov. 2. On Oct. 16, the Supreme Court declined the Republicans' request.



#### EARLY VOTING

In 2008 nearly a third of Mahoning County voted early, in keeping with national trends. Statewide, some 1.7 million Ohioans voted early, 100,000 of whom did so in the final three days before Election Day.



#### YOUNGSTOWN, OHIO

Mahoning County voted mostly 3 to 1 for Obama over John McCain in 2008. But the county has struggled during the downturn, and Mitt Romney has found an audience for his tough-on-China message there.

# HOW THE VOTERS WON

A national push to tighten voting rules has sputtered

BY MICHAEL GRUNWALD

HARRY SAWYER JR., THE LONGTIME SUPERVISOR of elections in the Florida Keys, was always skeptical of Governor Rick Scott's plan to purge noncitizens from the voter rolls. Sawyer, like Scott, is a Republican, but he was infuriated when the initial list of 182,000 names sent by the state was "so inaccurate we couldn't even deal with it." The state later whittled the list to about 2,600 supposedly ineligible voters, but it was still riddled with errors. "You just want to shake your head," Sawyer says. "They were solving a problem—voter fraud—that doesn't really exist." The state's final list, published in September, had only 198 names to strike from the rolls.

Only one was in Sawyer's Monroe County.

"Now we're trying to get hold of her, because we think she might have the right to vote after all," Sawyer says. "I've done this job for 24 years, and I've never seen a mess like this."

Photographs by Dominic Nahr for TIME

In Florida and across the U.S., Republican politicians have pushed a variety of measures this year that would make it harder to vote in November, from requiring photo IDs to restricting early voting to imposing new burdens on registration drives. Democrats have howled that the measures would disenfranchise a disproportionate share of minorities, students and other Democratic-leaning voters; Republicans have pointed out that the rules would apply to everyone, although some GOP officials have crowed about their potential to damage President Obama in November.

But after two years of legal and political wrangling, the GOP push to restrict the franchise in 2012 has largely been stymied by federal judges and local election officials. The final blow came on Oct. 16, when the Supreme Court rejected an 11th-hour appeal by Ohio Republicans eager to eliminate early voting on the weekend before Election Day. A federal court had already struck down Ohio's rollback of early voting, but GOP secretary of state Jon Husted had refused to enforce the decision; now Democrats have gotten their way, and polls so far suggest that the state's early vote has favored Obama.

Still, in a few states, Republicans have managed to enact restrictions that could make voting more inconvenient, including new photo-ID requirements in Kansas and Tennessee. And in a close election, even modest restrictions could make a ma-

ior difference. Take Florida, which knows a thing or two about close elections. Although Scott's voter purge sputtered, he and the Republican-controlled legislature succeeded in eliminating nearly half the state's early-voting days, including the pre-election Sunday that black churches have used for massive "souls to the polls" mobilization efforts. Florida also imposed such burdensome new regulations on voter-registration groups—like a rule requiring all new registrations to be submitted within 48 hours—that the nonpartisan League of Women Voters decided to suspend its registration drive in the state. A judge struck down that law in March, but registrations dropped sharply during the 10 months it was in effect.

Deirdre Macnab, the league's Florida president, worries meanwhile that another new law, requiring Floridians who move within the state to fill out a bulky provisional ballot, could be 2012's version

of hanging chads. "With a big turnout and fewer early-voting days, that could really gum up voting," Macnab says. "It's so frustrating to see voting fraud being waved like a red cape at a bull. It's not a real problem!"

The nonproblem of actual voter fraud has been inadvertently highlighted by the first real scandal of the cycle: allegations of widespread fraud on the part of the Republican Party of Florida's top registration vendor, Strategic Allied Consulting (SAC), which also signed up voters for the Republican National Committee. The GOP used similar allegations against ACORN to justify its campaign against voter fraud a few years back, but, hypocrisy aside, there's no reason to think either scandal will damage the integrity of the election. So far, it appears that SAC is being accused of gathering fake names to meet its quotas. As Sawyer points out, it's easy to get your dog registered but really hard to get him to cast a ballot.

Some in the GOP establishment acknowledge that there's no real epidemic of ineligible voting. For example, one U.S. Justice Department study found only 26 voter-fraud convictions from 2002 to 2005. But polls suggest that the public is sympathetic to strict voter-ID requirements. As one Republican official explains, you don't have to wait for a break-in to start locking your doors.

In the past, judges mostly accepted this reasoning, giving states broad latitude to craft their own election rules. But in the 2012 election cycle, 19 states passed laws or took executive actions making it harder to vote, and the sudden nationwide push had more than a whiff of political opportunism. A strict new voter-ID law in Texas would have allowed voters to present gun permits but not student identification; a court ruled that its burdens "will fall most heavily on the poor, and that a disproportionately high percentage of African Americans and Hispanics in Texas live in poverty." Pennsylvania's house majority leader bragged that a new voter-ID law would deliver his state to Romney; the sponsor of South Carolina's law handed out bags of peanuts with a card attached that read, "Stop Obama's nutty agenda and support voter ID."

But in Michigan, Republican governor Rick Snyder vetoed one bill that would have required voters to show a photo ID to obtain an absentee ballot and another requiring training for voter-registration workers. In Maine, voters overturned a

## IN MAINE, VOTERS OVERTURNED A NEW LAW BANNING ELECTION DAY REGISTRATION



**Early but not often.** A Youngstown, Ohio, voter requests an absentee ballot.

new law banning Election Day registration. And judges struck down various voting restrictions in closely contested Pennsylvania, Ohio, Wisconsin and Florida as well as in more solidly red states like South Carolina. The courts have cited all kinds of legal precedents, from state laws to the federal Voting Rights Act to the Constitution's Equal Protection Clause. "There's nothing unified about these decisions except that the courts are uncomfortable with a politically motivated effort to manipulate voting rules," says Wendy Weiser, founder of the Voting Rights and Elections Project at NYU's Brennan Center for Justice. "In the past, courts looked at this stuff as technical matters. Now they're seeing it in a broader political context."

You don't have to see new voter-ID laws, tighter registration times and restrictions on early voting as modern-day poll taxes to see that the minorities, seniors, students and low-income people these measures affect most are also more likely to vote Democratic. Or that a GOP with a base on the shrinking side of demographic trends has a problem if the Democratic base turns out at its 2008 levels. Democrats are furiously trying to use the Republican voter-suppression effort to rally that base; in Florida, black clergy have launched Operation Lemonade to try to use the lemon of losing their "souls to the polls" Sunday as a motivating tool. "People have suffered and bled and died for our right to vote, and a political party wants to take it away," thunders Bishop Victor Curry, a Baptist pastor in Dania Beach. "Oh, we won't stand idly by and let that happen."

With less than three weeks left in the campaign season, there's no way to know whether shorter early voting in Florida will mean longer lines on Election Day, or whether 10 lost months of registration drives will mean fewer new voters at the polls. Advocacy groups that generally focus on getting out the vote have diverted resources to educating voters about their rights. And many of these battles may have to be relitigated in the future, because most of the judges didn't rule out future restrictions on registration or future requirements for casting ballots. Weiser finds it frustrating to have to fight the same battles again and again to protect the franchise. She'd prefer to take on something new, like, say, the rise of money in politics. "It feels a little like Groundhog Day," she says. "Really, we'd like to move on."

## How Voting Got Harder Until the courts intervened

STRATEGY	OUTCOME	COMMENT
<b>TEXAS</b> In 2011, Texas' Republican-controlled legislature passed a <b>strict photo-ID law</b> , requiring those without an ID to bear some of the cost of obtaining one to vote.	After several lower-court skirmishes, a U.S. district court in Washington, D.C. blocked the law in late August, saying the measure would curtail the ability of minorities to vote in the general election.	"Chalk up another victory for fraud." —TEXAS GO-FORWARD RICK PERRY 44
<b>OHIO</b> Ohio's Republican-controlled legislature passed a provision <b>denying nonmilitary in-person voting</b> in the last three days before Election Day. Obama for America, the DNC and the Ohio Democratic Party sued. Mitt Romney then pledged to protect the rights of military voters.	On Oct. 5, an appeals-court panel ruled in the Democrats' favor. It extended early voting to Nov. 6. GOP attorneys general from Ohio and 15 other states joined forces to overturn that decision, but on Oct. 16 the Supreme Court declined to intervene further.	"The time has come to set aside this issue for election." —OHIO SECRETARY OF STATE MARK HARRIS 44
<b>PENNSYLVANIA</b> Last spring, Pennsylvania's Republican-controlled legislature passed a strict photo-ID law. House majority leader Mike Turzai proclaimed, "Voter ID, which is going to allow Governor Romney to win the state of Pennsylvania—done."	In September, the state supreme court raised questions about the measure and sent the matter to a lower court. A state judge then <b>blocked the most stringent aspect</b> of the law, allowing polling officials to request an ID but not require it.	"You don't need a photo-ID to vote in November." —DAVID GERSCHEK, voting rights lawyer 44
<b>FLORIDA</b> In May 2011, Governor Rick Scott signed a bill into law requiring <b>third-party voter groups</b> to hand in voter registration cards within two days of their being filled out or face a fine of \$50 per application.	A federal judge suspended the filing restrictions in May 2012 and issued an order in late August stating that the court will remove all restrictions once it receives confirmation that a federal appeals court has dismissed the case.	The new law would likely "reverse-flip"涧中流-like tactics." —THE FLORIDA LEAGUE OF WOMEN VOTERS, April 20, 2011 44
<b>ARIZONA</b> Arizona voters enacted a ballot initiative in 2004 requiring residents to <b>provide proof of citizenship</b> when registering to vote. A number of lower-court challenges commenced: several courts ruled that the measure, known as Prop 200, conflicted with federal law.	After a federal appeals court blocked parts of the measure, the Supreme Court decided on Oct. 15 to review the law but will not hear the case until next year. The law is not currently in effect.	"This 'honor system' is not sufficient to guard the integrity of the election system." —ARIZONA ATTORNEY GENERAL TOM HORSEMAN 44
<b>TENNESSEE</b> In 2011, Tennessee's Republican-controlled legislature passed a bill requiring voters to present a <b>government-issued photo ID at the polls</b> . Republican Governor Bill Haslam signed the bill into law.	Under the new law, early voting began Oct. 17. The Tennessee court of appeals will hold its first hearing on the voter-ID bill on Oct. 18.	"We always come here to vote. The people who run the polls know everybody." —68-YEAR-OLD GODFREY COOPER offer bring into the locked ID

ALEX ROGERS

# what's more relaxing than your music?

almost nothing.

## Bose QuietComfort 15 Acoustic Noise Cancelling headphones

Welcome to a quieter world. Whether you want to clearly hear the nuances in your music or quietly relax in peace, slip on the QC® 15 headphones. These are **our best headphones**, and significant advances in the noise reduction make them **our quietest ever**. No other headphones offer you the same combination of less noise, lifelike audio, lasting quality and comfortable fit. These are fabulous, says Murray Hill of Canada.com. "Simply put, the sound is beautiful. We invite you to hear the difference these award-winning headphones make on planes, at home and in the office for 30 days, risk-free. When you call, ask about making **12 easy payments**, with no interest charges from Bose.® We're so sure you'll be delighted, we'll even pay to ship them to your door."

**BOSE**  
Better sound through research

To order or learn more:

1-800-729-2073, ext. Q8646 or visit [Bose.com/QC](http://Bose.com/QC)

These payments are available on orders of \$299-\$1500 (USD/CA\$) only. Minimum order \$299. Separate financing offers may be available for select products. See website for details. Down payments may not be prorated to capital if applicable. Late shipping charges are charged whenever or due to shipping delays. Total cost of credit will be based on the equal monthly installments and the approximate compound interest rate on the date you receive your order shipped with it. All late and interest charges from Bose.® Credit card companies will assess a late fee and interest may apply. U.S. residents only. This offer is a 12 month financing program per customer. ©2012 Bose Corporation. The distinctive design of the headphones, including the "B" emblem of Bose Corporation, is a registered trademark of Bose Corporation. Financing and credit approval are required. This offer is combined with another offer (exempted late fees, purchase, and subject to change without notice). See website for details. ©2012 Bose Corporation. Credit approval may require credit approval on other accounts. Enclosed in the order confirmation will be a copy of the financing agreement. Delivery address is the product's availability. Only the first payment is non-refundable.

HIGHER EDUCATION

# Reinventing College

The term *iron triangle* is not from geometry class but from experts describing the three big, interrelated problems facing America's colleges and universities: access, cost and quality. Only 3% of the students at the top 140 colleges come from families in the bottom fourth of household income. Fewer than 6 in 10 undergraduates finish four-year degrees within six years. Student-loan debt has topped \$900 billion. And employers need workers with a college education more than ever. None of these problems can be solved in isolation. Higher education has been the great engine of American prosperity, innovation and social mobility, and we weaken it at our own peril. We must find a way to do better. —RICHARD STENGEL





Computer-Generated Image by Richard Kolker for TIME



HIGHER EDUCATION

# College Is Dead. Long Live College!

Can a new breed of online megacourses finally offer a college education to more people for less money?

By Amanda Ripley

ON SEPT. 17, THE PAKISTANI GOVERNMENT SHUT DOWN ACCESS to YouTube. The purported reason was to block the anti-Muslim film trailer that was inciting protests around the world.

One little-noticed consequence of this decision was that 215 people in Pakistan suddenly lost their seats in a massive, open online physics course. The free college-level class, created by a Silicon Valley start-up called Udacity, included hundreds of short YouTube videos embedded on its website. Some 23,000 students worldwide had enrolled, including Khadijah Niazi, a pigtailed 11-year-old in Lahore. She was on question six of the final exam when she encountered a curt message saying "this site is unavailable."

Niazi was devastated. She'd worked hard to master this physics class before her 12th birthday, just one week away. Now what?

**Head of the class**

Some 23,000 people enrolled in Andy Brown's physics course at Udacity



Niazi posted a lament on the class discussion board: "I am very angry, but I will not quit."

In every country, education changes so slowly that it can be hard to detect progress. But what happened next was truly different. Within an hour, Maziar Kosarifar, a young man taking the class in Malaysia, began posting detailed descriptions for Niazi of the test questions in each video. Rosa Brígida, a novice physics professor taking the class from Portugal, tried to create a workaround so Niazi could bypass YouTube; it didn't work. From England, William, 12, promised to help and warned

Niazi not to write anything too negative about her government online.

None of these students had met one another in person. The class directory included people from 125 countries. But after weeks in the class, helping one another with Newton's laws, friction and simple harmonic motion, they'd started to feel as if they shared the same carrel in the library. Together, they'd found a passageway into a rigorous, free, college-level class, and they weren't about to let anyone lock it up.

By late that night, the Portuguese professor had successfully downloaded all

the videos and then uploaded them to an uncensored photo-sharing site. It took her four hours, but it worked. The next day, Niazi passed the final exam with the highest distinction. "Yayyyyyy," she wrote in a new post. (Actually, she used 43 y's, but you get the idea.) She was the youngest girl ever to complete Udacity's Physics 101 class, a challenging course for the average college freshman.

That same day, Niazi signed up for Computer Science 101 along with her twin brother Muhammad. In England, William began downloading the videos for them.



## High-End Learning on the Cheap

THE HYPE ABOUT ONLINE LEARNING IS OLDER than Niazi. In the late 1990s, Cisco CEO John Chambers predicted that "education over the Internet is going to be so big, it is going to make e-mail usage look like a rounding error." There was just one problem: online classes were not, generally speaking, very good. To this day, most are dry, uninspired affairs, consisting of a patchwork of online readings, written Q&As and low-budget lecture videos. Many students nevertheless pay hundreds of dollars for these classes—3 in 10 college students report taking at

## Ivy League for the Masses

From a \$100-a-semester online course offered by MIT to

EDUCATION      TECHNOLOGY      U.S. NEWS RANKINGS      ALL

For-profit      For-profit      Not for profit

January 2012

April 2012

May 2012

An island unto itself, the site was co-founded by a former Stanford professor

33 colleges so far, including Princeton, Stanford, Penn, Duke, Ohio State and the University of Virginia

MIT and Harvard have been joined by the University of Texas and the University of California, Berkeley

14

198

7

Introduction to Statistics, Software Debugging, Applied Cryptography

Fundamentals of Electrical Engineering, Introduction to Guitar, Greek and Roman Mythology

Introduction to Computer Science, Circuits and Electronics, Artificial Intelligence

400,000

1.4 million

350,000

least one online course, up from 1 in 10 in 2003—but afterward, most are no better off than they would have been at their local community college.

Now, several forces have aligned to revive the hope that the Internet (or rather, humans using the Internet from Lahore to Palo Alto, Calif.) may finally disrupt higher education—not by simply replacing the distribution method but by reinventing the actual product. New technology, from cloud computing to social media, has dramatically lowered the costs and increased the odds of creating a decent online education platform. In the past year alone, start-ups like Udacity, Coursera and edX—each with an elite university imprimatur—have put 219 college-level courses online, free of charge. Many traditional colleges are offering classes and even entire degree programs online. Demand for new skills has reached an all-time high. People on every continent have realized that to thrive in the modern economy, they need to be

able to think, reason, code and calculate at higher levels than before.

At the same time, the country that led the world in higher education is now leading its youngest generation into a deep hole. According to the Federal Reserve Bank of New York, Americans owe some \$914 billion in student loans; other estimates say the total tops \$1 trillion. That's more than the nation's entire credit-card debt. On average, a college degree still pays for itself (and then some) over the course of a career. But about 40% of students at four-year colleges do not manage to get that degree within six years. Regardless, student loans have to be repaid; unlike other kinds of debt, they generally cannot be shed in bankruptcy. The government can withhold tax refunds and garnish paychecks until it gets its money back—stifling young people's options and their spending power.

For all that debt, Americans are increasingly unsure about what they are getting. Three semesters of college education have

# Degrees of Difficulty

Tuition keeps rising, but so does the need for more graduates

## Tuition Costs Are Soaring

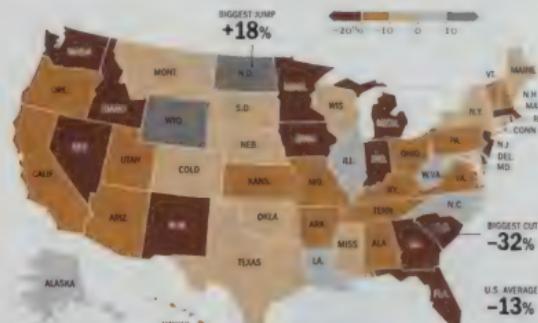
Higher rates are fueled by tuition & fee increases, state lower tax revenues

States and federal funding, tuition rates, and tuition fees have increased.



## States are reducing per-student funding to colleges

Change in state spending on public colleges and universities, 2005-11

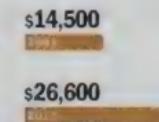


## Student debt loads are increasing

Percentage with debt



Average debt (2011 dollars)



The default rate was 5.6% in 1999.  
In 2010 it was 9.1%.

## Having fewer degrees threatens our global competitiveness

People in the workforce with a college degree



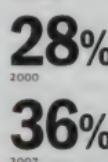
## Today's College Students, in Brief

### There are more of them

College enrollment in the U.S.



### More undergrads need remedial classes



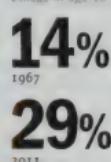
### An increasing number come from low-income families

Respondents of low-income families among the nation's college-bound seniors



### They are older

Percentage starting college at age 19 or older



## Attending College Is Still a Smart Move

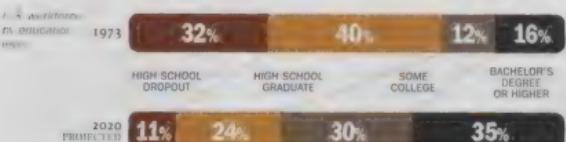
higher education is costly, but a degree is still a valued commodity. College graduates earn more than their less-educated counterparts.



Percentage more that those with a bachelor's degree can expect to earn in their lifetime compared with those with only a high school diploma

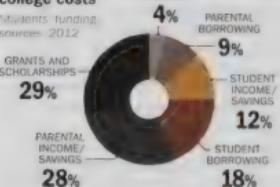
**77%** In 1975 the gap was 50%

By 2020, 65% of all jobs will require postsecondary education.

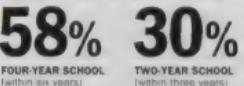


## How they cover college costs

## Students funding sources 2012



#### Percentage who graduate on time



TIME Graphic by Deirdre van Dyk,  
Leslie Dickstein and Claire Manibog.  
Sources: Higher Education Research Institute, UCA; Sallie  
Mae; NCES; National Conference of State Legislatures; FINAID;  
NASCHE; the College Board; State Higher Education Executive  
Officers; Georgetown Center on Education and the Workforce;  
McKinsey Global Institute.

a "barely noticeable" impact on critical thinking, complex reasoning and writing skills, according to research published in the 2011 book *Academically Adrift*. In a new poll sponsored by TIME and the Carnegie Corporation of New York, 80% of the 1,000 U.S. adults surveyed said that at many colleges, the education students receive is not worth what they pay for it. And 41% of the 540 college presidents and senior administrators surveyed agreed with them.

Arriving at this perilous intersection of high demand, uneven supply and absurd prices are massive open online courses (endowed with the unfortunate acronym MOOCs), which became respectable this year thanks to investments from big name brands like Harvard, Stanford and MIT. Venture capitalists have taken a keen interest too, and the business model is hard to resist: the physics class Niazi was taking cost only about \$2 per student to produce.

Already, the hyperventilating has outpaced reality: desperate parents are praying that free online universities will finally pop the tuition bubble—and nervous college officials don't want to miss out on a potential gold rush. The signs of change are everywhere, and so are the signs of panic. This spring, Harvard and MIT put \$60 million into a nonprofit MOOC (rhymes with duke) venture called edX. A month later, the president of the University of Virginia abruptly stepped down—and was then quickly reinstated—after an anxious board member read about other universities' MOOCs in the *Wall Street Journal*.

One way or another, it seems likely that more people will eventually learn more for less money. Finally, the next question might be: Which people?

## How the Brain Learns

THIS FALL, TO GLIMPSE THE FUTURE OF higher education, I visited classes in brick-and-mortar colleges and enrolled in half dozen MOOCs. I dropped most of the latter because they were not very good. Or rather, they would have been fine in person, nestled in a 19th century hall at Princeton University, but online, they could not compete with the other distractions on my computer.

I stuck with the one class that held my attention, the physics class offered by Udacity. I don't particularly like physics, which is why I'd managed to avoid studying it for the previous 38 years. What surprised me was the way the class was taught. It was designed according to how the brain actually learns. In other words, it had almost nothing in common with school.



## College Tour: Four Approaches to Physics 101

GEORGETOWN UNIVERSITY	UNIVERSITY OF THE DISTRICT OF COLUMBIA	UNIVERSITY OF PHOENIX	UDACITY
Elite four-year private university	Less selective public university	Mostly online university	MOOC
150–200	15–20	20	23,000
Five hours per week for 15 weeks	5½ hours per week for 15 weeks	Four hours of interactive contact for five weeks	Nine hours total; go at your own pace
Three in-person lectures per week as well as a section meeting led by teaching assistants	Two in person lectures led by a professor per week	Entirely online	Entirely online
Yes	Yes	Yes (virtual)	No
\$4,200	\$1,225 for D.C. residents, \$1,399 for metro-area residents	\$1,185	\$0
Yes	Yes	Yes	No

\*Only 1,200 completed the final exam. <sup>1</sup>In September, Colorado State University's online-only Global Campus began offering transfer credits to Udacity's computer-science students who take the final exam at a secure testing facility; that option is not yet available for other Udacity classes

with most classes I'd taken before.

*Minute 1:* Physics 100 began with a whirling video montage of Italy, slow-motion fountains and boys playing soccer on the beach. It felt a little odd, like *Rick Steves' Physics*, but it was a huge improvement over many other online classes I sampled, which started with a poorly lit professor staring creepily into a camera.

When the Udacity professor appeared, he looked as if he were about 12; in fact, he was all of 25. "I'm Andy Brown, the instructor for this course, and here we are, on location in Siracusa, Italy!" He had a crew cut and an undergraduate degree from MIT; he did not have a Ph.D. or tenure, which would turn out to be to his advantage.

"This course is really designed for anyone ... In Unit 1, we're going to begin with a question that fascinated the Greeks: How big is our planet?" To answer this question, Brown had gone to the birthplace of Archimedes, a mathematician who had tried to answer the same question over 2,000 years ago.

*Minute 4:* Professor Brown asked me a question. "What did the Greeks know?" The video stopped, patiently waiting for me to choose one of the answers, a task that actually required some thought. This happened every three minutes or so, making it difficult for me to check my e-mail or otherwise disengage—even for a minute.

"You got it right!" The satisfaction of correctly answering these questions was surprising. (One MOOC student I met called it "gold-star methadone.") The questions weren't easy, either. I got many of them wrong, but I was allowed to keep trying until I got the gold-star fix.

Humans like immediate feedback, which is one reason we like games. Researchers know a lot about how the brain learns, and it's shocking how rarely that knowledge influences our education system. Studies of physics classes in particular have shown that after completing a traditional class, students can recite Newton's laws and maybe even do some calculations, but they cannot apply the laws to problems

they haven't seen before. They've memorized the information, but they haven't learned it—much to their teachers' surprise.

In a study published in the journal *Science* in 2011, a group of researchers conducted an experiment on a large undergraduate physics class at the University of British Columbia. For a week, one section of the class received its normal lecture from a veteran, highly rated professor; another section was taught by inexperienced graduate students using strategies developed from research into human cognition. Those strategies mirrored those in Udacity's class. The students worked in small groups to solve problems with occasional guidance from the instructor. They got frequent feedback. In the experimental group with novice instructors, attendance increased 20% and students did twice as well on an end-of-week test.

*Minute 8:* Professor Brown explained that Plato had also tried (and failed) to estimate the earth's circumference. Brown did this by jotting notes on a simple white screen. Like all the other videos in the course, this

clip lasted only a few minutes. This too reflects how the brain learns. Studies of college students have shown that they can focus for only 10 to 18 minutes before their minds begin to drift; that's when their brains need to do something with new information—make a connection or use it to solve a problem.

At this point in the Udacity class, three video clips into the experience, about 15,000 students were still paying attention, according to the company's metrics. But that's actually high for a MOOC. (Since it requires little effort and no cost to enroll, lots of people dip in and out of these classes out of curiosity. Only 1 in 10 of those enrolled in a Udacity class typically makes it all the way to a course's last video.) Like most other online classes, it was asynchronous, so I could rewind or leave and come back whenever I wanted. This also accords with how the brain works: humans like autonomy. If they learn best late at night, they like to learn at night, on their own terms.

**Minute 57:** After 47 fast-paced videos spiced with pop quizzes, I did actually know how big the earth was. Brown had reviewed geometry and trigonometry with examples from actual life. And when it came time to put it all together, I got to see him measure a shadow that formed a right triangle, setting up a mathematical proportion to calculate the circumference of the earth, just like an ancient mathematician.

"Congratulations!" he said. "This is really incredible, what you can do now." Then he asked the class to send in videos of themselves measuring shadows. I was skeptical. Would people actually do this?

Yes, they would. The first video was from a young woman in Tampere, Finland—a drummer who wanted to change her career. There she was, with yellow dreadlocks, measuring a shadow in a parking lot. Another woman submitted photos of herself completing the experiment in Texas, plus a poem! "We solve for C, and long at last/stalk a route into our own past."

The Finn cheered. "Super artistic!" Brown showed the poem around the Udacity office. One student did the experiment at a degrees latitude in Ecuador. Many more people posted questions; within minutes, they got detailed, helpful answers from other students. It was as if a whole pop-up learning community had materialized overnight, and it was strangely alive.

### Turning Down Professors

WHEN HE WAS A TENURED PROFESSOR AT Stanford, Sebastian Thrun, the CEO and co-founder of Udacity, did not teach ac-



**Class disruptor** Thrun co-founded Udacity after teaching a massive online course at Stanford

cording to how the brain learns. He is not proud of this fact. "I followed established wisdom," he says. His students, who were used to traditional lectures, gave him high marks on his course evaluations. They didn't know what they were missing.

In 2011 Thrun and fellow professor Peter Norvig decided to put their Artificial Intelligence class online. But when they sampled other online courses, they realized that most of them were mediocre. To captivate students from afar, they would need to do something different. So they started planning lessons that would put the student at the center of everything. They created a series of problems for students to solve so that they had to learn by doing, not by listening.

By last fall, 160,000 people had enrolled. But the class was not particularly inspiring—at first. One student complained that the software allowed students to try each problem only once. "I realized, 'Wow, I'm setting students up for failure in my obsession to grade them,'"

says Thrun. So he changed the software to let students try and try until they got it right. He also paid attention to the data, and he had a lot of it. When tens of thousands of students all got the same quiz problem wrong, he realized that the question was not clear, and he changed it. And the students themselves transformed other parts of the class, building online playgrounds to practice what they were learning and even translating the class into 44 languages.

Meanwhile, Thrun had told his Stanford students they could take the class online if they didn't want to attend lectures. More than three quarters of them did so, viewing the videos from their dorms and participating as if they were thousands of miles away. Then something remarkable happened. On the midterm, the Stanford students scored a full letter grade higher on average than students had in previous years. They seemed to be learning more when they learned online. The same bump happened after they took the final.

Still, the Stanford students were not

# Critical Thinking

The TIME Carnegie Corporation survey asked U.S. adults and college leaders about the crisis in postsecondary education

## The Value of Higher Education

What is the most important reason people should go to college?



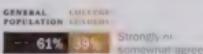
At many colleges, there is too much of a disconnect between the courses offered and students' career goals



There is too much emphasis on attending four-year college as opposed to community college or vocational schools



The government should be funding to measurements of how much students learn in college



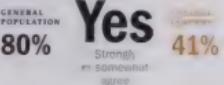
## Online Education

Much of the teaching on college campuses can be replaced by online courses



## Cost of College

At many colleges, the education students receive is not worth what they pay for it



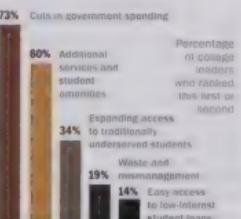
The average debt load for college seniors who took out loans and graduated in 2010 was...

**\$25,250**

Is that...



What are the biggest factors contributing to the overall rising costs of college?



Students will not learn as much in online courses as they will in traditional classes



the stars of the class. At the end of the semester, not one of the course's 400 top performers had a Stanford address.

The experience forced Thrun to rethink everything he knew about teaching, and he built Udacity upon this reordering of the universe. Unlike Coursera, another for-profit MOOC provider—which has partnered with dozens of schools, including Stanford, Princeton and, more recently, the University of Virginia—Udacity selects, trains and films the professors who teach its courses. Since it launched in January, Udacity has turned down about 500 professors who have volunteered to teach, and it has canceled one course (a math class that had already enrolled 20,000 students) because of subpar quality.

Right now, most MOOC providers do not make a profit. That can't continue forever. Udacity will probably charge for its classes one day, Thrun says, but he claims the price will stay very low; if not, he predicts, a competitor will come along and steal away his students.

Udacity does not offer a degree, since it's not an accredited university. Students get a ceremonial certificate in the form of a PDF. Grades are based on the final exam. Students who choose to take the final for Udacity's computer-science course at an independent testing center (for \$89) can get transfer credits from Colorado State University—Global Campus, an online-only school.

Getting more colleges to accept transfer credits would be nice, but in the longer term, Udacity aims to cut out the middleman and go straight to employers. This week, Udacity announced that six companies, including Google and Microsoft, are sponsoring classes in skills that are in short supply, from programming 3-D graphics to building apps for Android phones.

Meanwhile, about 3,000 students have signed up for Udacity's employer-connection program, allowing their CVs to be shared with 350 companies. Employers pay Udacity a fee for any hires made through this service. So far, about 20 students have found work partly through Udacity's help, Thrun says. Tamir Duberstein, 24, who studied mechanical engineering in Ontario, recently got two job offers after completing six Udacity courses. He took one of the offers and now works at a software company in San Francisco.

Still, it will be a long time before companies besides high-tech start-ups trust anything other than a traditional degree. That's why hundreds of thousands of people a year enroll in the University of Phoenix, which

most students attend online. Says University of Phoenix spokesman Ryan Rauzon: "They need a degree, and that isn't going to change anytime soon."

### MOOCs vs. the College Campus

TO COMPARE MY ONLINE EXPERIENCE WITH a traditional class, I dropped into a physics course at Georgetown University, the opposite of a MOOC. Georgetown admitted only 17% of applicants last fall and, with annual tuition of \$42,360, charges the equivalent of about \$4,200 per class.

The university's large lecture course for introductory physics accommodates 150 to 200 students, who receive a relatively traditional classroom experience—which is to say, one not designed according to how the brain learns. The professor, who is new to the course, declined to let me visit.

But Georgetown did allow me to observe Physics 151, an introductory class for science majors, and I soon understood why. This class was impressively nontraditional. Three times a week, the professor delivered a lecture, but she paused every 15 minutes to ask a question, which her 34 students contemplated, discussed and then answered using handheld clickers that let her assess their understanding. There was a weekly lab—an important component missing from the Udacity class. The students also met once a week with a teaching assistant who gave them problems designed to trip them up and had them work in small groups to grapple with the concepts.

The class felt like a luxury car: exquisitely wrought and expensive. Fittingly, it met in a brand-new, state-of-the-art \$100 million science center that included 12 teaching labs, six student lounges and a café. It was like going to a science spa.

Elite universities like Georgetown are unlikely to go away in the near future, as even Udacity's co-founder (and Stanford alum) David Stavens concedes. "I think the top 50 schools are probably safe," he says. "There's a magic that goes on inside a university campus that, if you can afford to live inside that bubble, is wonderful."

Where does that leave the rest of the country's 4,400 degree-granting colleges? After all, only a fifth of freshmen actually live on a residential campus. Nearly half attend community colleges. Many never experience dorm life, let alone science spas. To return to reality, I visited the University of the District of Columbia (UDC)—a school that, like many other colleges, is not ranked by *U.S. News & World Report*.

When I arrived at the UDC life-sciences building, I met Professor Daryao Khatri,

## The class felt like a luxury car: exquisitely wrought and expensive

who has been teaching for 37 years and yet seemed genuinely excited to get to his first day of class in a new semester.

"They hate physics," he said about his students, smiling. "You will see. They are terrified." He led me to his classroom, a lab with fluorescent lights and a dull yellow linoleum floor. His 20 students were mostly young adults with day jobs, which is why they were going to school at night. Many hoped to go to medical school one day, and they needed to take physics to get there.

Khatri started the class by asking the students to introduce themselves. "I took physics in high school," said one woman, a biology major, "and it was the hardest class I ever had."

"I'm about to change that!" Khatri shouted. Another young woman said, "I took calculus online, and it was just awful." It felt more like a support group than a college course. Then Khatri detailed his rules for the class. "Please turn the cell phones off," he said in a friendly voice. "Not on vibrate. I will know. I will take it away. Cell phones are a big disaster for the science classes."

Khatri had less than one half of 1% of the students that Professor Brown had on Udacity, but he was helping them with many skills beyond physics. He was cultivating discipline and focus, rebuilding confidence and nurturing motivation. "Please complain if you aren't learning," he said more than once.

After a full hour of introductions and expectations, Khatri started reviewing geometry and trigonometry so that the students would have enough basic math to begin. He did this in far more detail than Brown had on Udacity, and it was clear from their questions that many of the students needed this help. As with most other Americans, their math and science background was spotty, with big holes

in important places. For the next hour, Khatri called on every student to answer questions and solve problems; just as on Udacity, they couldn't zone out for long.

Three weeks later, I returned to Khatri's class. He was about a week behind the Udacity pace, and his quizzes were easier. But not a single student had dropped his class. And when I asked a group of students if they would ever take this class online, they answered in unison: "No way."

At this stage, most MOOCs work well for students who are self-motivated and already fairly well educated. Worldwide, the poorest students still don't have the background (or the Internet bandwidth) to participate in a major way. Thrun and his MOOC competitors may be setting out to democratize education, but it isn't going to happen tomorrow.

What is going to happen tomorrow? It seems likely that very selective—and very unselective—colleges will continue to thrive. At their best (and I was only allowed to witness their best, it's worth noting), Georgetown and UDC serve a purpose in a way that cannot easily be replicated online. The colleges in the middle, though—especially the for-profit ones that are expensive but not particularly prestigious—will need to work harder to justify their costs.

Ideally, Udacity and other MOOC providers will help strip away all the distractions of higher education—the brand, the price and the facilities—and remind all of us that education is about learning. In addition to putting downward pressure on student costs, it would be nice if MOOCs put upward pressure on teaching quality.

By mid-October, YouTube remained dark in Pakistan, and the power blinked out for about four hours a day at Niazi's home in Lahore. But she had made it halfway through Computer Science 101 anyway, with help from her classmates.

Niazi loved MOOCs more than her own school, and she wished she could spend all day learning from Andy Brown. But when I asked her if she would get her degree from Udacity University, if such a thing were possible, she demurred. She had a dream, and it was made of bricks. "I would still want to go to Oxford or Stanford," she said. "I would love to really meet my teachers in person and learn with the whole class and make friends—instead of being there in spirit."

*Ripley, a TIME contributing writer, is an Emerson Fellow at the New America Foundation, where she is writing a book about education around the world*



# Demand Real Change

By Mitt Romney

**MY FATHER HAD A FAVORITE SAYING:** "Nothing is as vulnerable as entrenched success." When I think about the future of American higher education and its importance to our nation's long-term success, his cautionary advice comes to mind.

We are rightly proud of our extraordinary universities and other institutions of higher learning. Many of the most important scientific breakthroughs occur in their labs, and young people from around the world flock to their campuses to study. For decades, we have known that these institutions were promoting inquiry, inspiring creativity and ultimately preparing our citizens for success.

But today our higher-education system faces serious challenges. During the last election, President Obama genuinely inspired young Americans with a promise of hope and change. On college campuses across our country, he promised an excited generation that he would help them. Four years later, those promises have turned to disappointments.

Tuition has increased by 25%—even faster than health care costs. The President added tens of billions of dollars in federal funding, and yet more than three-quarters of families now say they feel

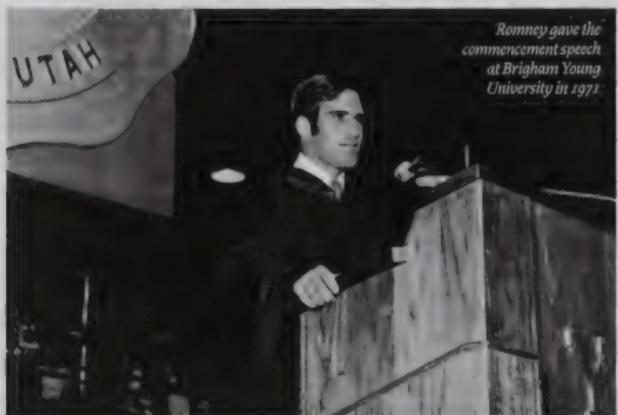
higher education is unaffordable. Total student debt has reached \$1 trillion, and the average student who borrows now graduates with \$25,000 in debt. Perhaps worst of all, these students are graduating into an economy in which only half can even find jobs that match their degrees.

The future isn't a hopeful place for these students. The American people face an important choice: Will we continue with President Obama's approach of more deficit spending, offering only debt forgiveness as an answer because earnings are low and possibilities are limited? Or will we pursue genuine reforms that strengthen the system and ensure our youth can afford an education that gives them an opportunity to succeed?

I am running for President because I refuse to accept that bigger government programs, more debt and fewer opportunities is the best we can do. As President, I will provide the leadership we need to meet this crisis head on. I spent most of my career in the private sector, where the only way to prevent entrenched success from giving way to decline is to adapt, to compete, to innovate. We must pursue policies that inject this same spirit into higher education.

Some of our institutions have begun

*Romney gave the commencement speech at Brigham Young University in 1971*



these efforts, but we must redouble them. We also need to expand the options available to students. Other models of advanced skills training are becoming ever more important to success in the American economy, and new educational institutions will be required to fill those roles.

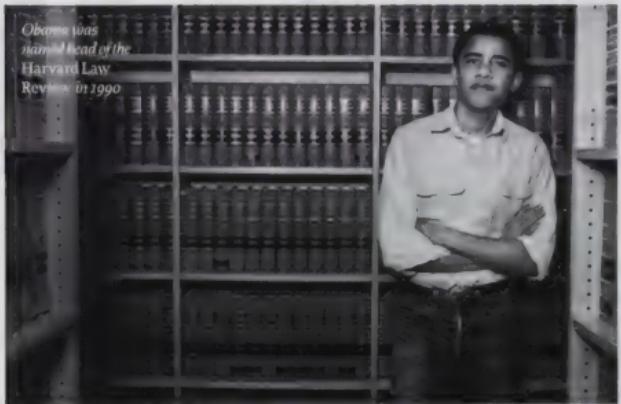
Innovation is only part of the solution. We must also address costs. While the federal government has an important role to play in providing access through financial aid, the uncontrolled flood of federal dollars into the system is not the answer to providing access. To the contrary, endless government support only fuels skyrocketing tuition. And at a time when America is facing record deficits and debt, more spending is simply not an option.

We can provide opportunity without bankrupting this country, but America needs a new approach. While the President has decided to nationalize the student-lending process, I believe that private-sector competition is more important than ever. Students and their families must be given the information they need to intelligently weigh the costs and benefits of the many options available to them.

Better information about products and services helps consumers make more informed choices, and nowhere is this as important as when students consider a postsecondary education. We can offer families more information and more choices while streamlining the system to make it simpler and easier to understand.

Finally, it is crucial that we focus not only on access to higher education but also on successful completion. Far too many students drop out before finishing their degree, ending up disenchanted and in debt. We need to make sure that students have the support and preparation they need to thrive in a postsecondary environment. As President, I will work with Congress to achieve fundamental education reform that gives every student the opportunity to succeed.

Our economy is demanding more advanced skills and more varied skills every day. Our higher-education system must be responsive to these demands if it is to offer students an attractive return on their investment, prepare them for successful careers and help America compete in the global marketplace.



## Don't Stop Now

Our informed, taking most and holding results By Barack Obama

**MICHELLE AND I ARE WHO WE ARE ONLY** because of the chances our education gave us. Great teachers and the chance to earn a college education with the help of scholarships and student loans were our gateways to opportunity. And today more than ever, the education we provide for our children and our workers is the key to a good job and a secure middle-class life.

I've always believed that education begins at home, with parents who take responsibility—who read to their kids, set limits on the TV and instill a lifelong love of learning. But there's no substitute for a good school or the teacher who stands at the front of the classroom.

We know that a good teacher can increase the lifetime income of a classroom by more than \$250,000. A great teacher can change the trajectory of a child's life. That's why, even as we faced one of the worst economic crises in history, I fought to keep teachers in the classroom. During my first two years in office, we worked with states to help save the jobs of 400,000 educators.

But we did more than just invest resources in our schools. We demanded reform in return. And for less than 1% of what our country spends on education each year, we spurred nearly every state to raise standards for teaching and learning.

We did this by working with governors of both parties, because giving our kids the best education possible shouldn't be a Democratic issue or a Republican issue—it's an American issue.

We're attacking the dropout crisis, because we know the good jobs of tomorrow will demand more than a high school education. And as we work to graduate more students prepared for college and a career, we're also working to make higher education more affordable. We cut big banks out of the student-loan program and passed the savings directly to students. We stopped student-loan interest rates from doubling, gave nearly 4 million more young people scholarships to help them afford their degree and invested in our community colleges—pathways to the middle class for millions of Americans. In a 21st century economy, higher education cannot be a luxury; it is an economic necessity every family should be able to afford.

So we're making progress. And there's more to do. But one thing is certain: we're not going to get to where we need to be if we turn back now.

My opponent in this election said that teachers are something we need to "cut back on." And he put forward an economic plan that would help do just that. In

order to pay for another round of tax cuts skewed toward the wealthiest Americans, Governor Romney's economic plan could cut education by up to 20%. It could reduce financial aid for nearly 10 million students. And he plans to undo the student loan reforms we passed so that big banks once again reap taxpayer dollars. Think about what that means: more teacher layoffs, larger class sizes and more young Americans who can't afford the cost of college. That's not a plan to create jobs or opportunity or strengthen the middle class—it's just wrong.

IN EARLY OCTOBER, GOVERNOR ROMNEY said that hiring more teachers won't grow the economy over the next four years. He's wrong, of course. Hiring more teachers actually does grow the economy. But he misses a broader point: If we don't hire more good teachers, what about our kids over the next four years? What about our economy over the next 40 years?

No child should have their dreams deferred because of a crowded classroom or a crumbling school. No family should have to set aside a college acceptance letter because they don't have the money. No company should have to look for workers in China because it couldn't find any with the right skills here at home. I refuse to jeopardize our economic future just so that millionaires and billionaires can get another tax cut.

I have a better plan. Together, we can recruit 100,000 math and science teachers over the next decade. We can give 2 million workers the chance to attend their local community college and arm themselves with the skills that will lead directly to a job. We can work with colleges and universities to cut tuition growth in half over the next 10 years. We can make these investments—and bring down our deficits—by being smart about spending, by winding down the war in Afghanistan responsibly and by asking the wealthiest Americans to contribute a little more.

That's the path I'm offering. And I'm not only asking for your help, I'm asking for your vote. After all that we have fought through together these past four years—after all the progress we've made—now is not the time to go backward. Now is the time to move forward. Together, we can strengthen the middle class, grow our economy for the long term and open new doors of opportunity for all our kids.

# The Debt Crisis In Higher Ed

Six views on how to meet the challenge of soaring costs

## Keep Public Universities Public

BY GENE D. BLOCK

AS CHANCELLOR OF A PUBLIC university, I regularly meet with our students. It helps me understand the challenges they face and reminds me who I'm working for. One of those students, Eric Pedroza, will soon become the first in his family to graduate from college. In addition to Pell Grants and scholarships, he worked three jobs last year to pay for school.

Twenty years ago, tuition at UCLA was \$1,624 (or \$2,564 in today's dollars). This year tuition is \$12,192. Why has the cost gone up so much? Because during Eric's life-time, California has slashed per-student funding 60%. Other states have made similar cuts. We've cut spending, but beyond that, the only alternative to tuition hikes is to offer fewer courses to a larger number of students—a combination that would likely result in delayed graduations and more restricted career opportunities.

Public universities were

created to expand access to higher education, but funding cuts are driving tuition up to the level of private institutions. We need to keep public universities public. To do this, we need an aggressive strategy that involves the federal government and private industry, which for too long has relied on universities, at little or no cost, to provide an educated workforce. The next President could seek financial support from private industry in the form of a tax. Or he could consider other ideas, like one circulated by UC Berkeley chancellor Robert Birgeneau, who has suggested using federal matching funds to enhance donations when those in the private sector step up to support public research universities. Whether the next President uses a carrot or a stick, higher education is America's future—and it's time to make it a priority.

*Block is the chancellor of the University of California, Los Angeles, and chairman of the Association of Public and Land-Grant Universities*

MOLLY CORBETT BROAD  
President of the American Council on Education

'Just 27% of undergrads are fresh out of high school and studying full time at a four-year school. More competency-based programs could help veterans and displaced workers get degrees faster.'

## Make College Costs More Transparent

BY TOM HARKIN

STUDENT DEBT HAS SURPASSED credit-card debt in the U.S. and reached \$1 trillion, a nearly 50% increase from four years ago. As I discovered in my recent Senate committee investigation, more than a quarter of federal financial aid goes to for-profit colleges, yet nearly half of the students at these colleges drop out within four months—a development that calls for a closer look at the standards to which we hold schools that receive federal aid.

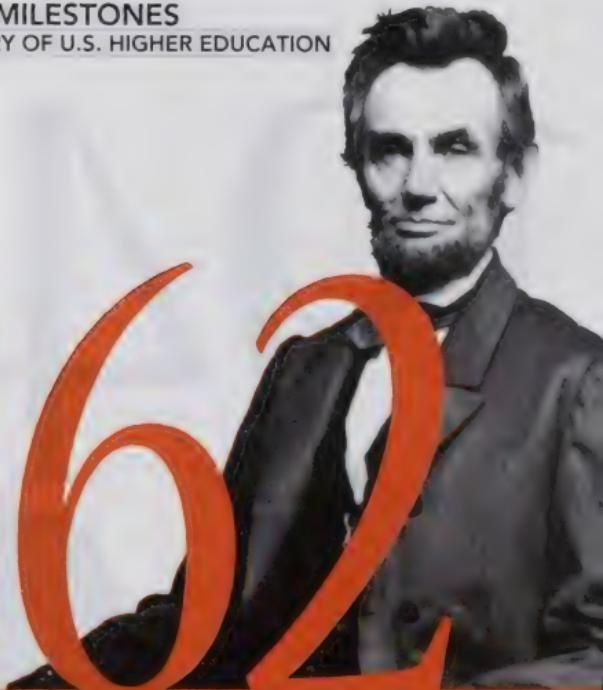
As we reauthorize the Higher Education Act in the next Congress, we must make college more affordable, but more important, we must empower students and families by making the process of selecting a college easier and more transparent, so students know exactly what they're paying for. While many colleges are trying to keep costs down, many more are stuck in a business-as-usual mode, which is neither sustainable nor desirable.

Some colleges—like my alma mater, Iowa State University—are investing in earlier and more effective counseling so that families can start planning from the first year of college and know their financing and repayment options. We must invest in work-study programs and help students with smart budgeting. Finally, we must expand the number of borrowers who are



MILESTONES  
IN THE HISTORY OF U.S. HIGHER EDUCATION

# 1862



President Abraham Lincoln, in the midst of the Civil War, signs the Morrill Act granting federal land to states to help them establish public colleges. This "land grant college" act makes access to higher education widely available and open to all, and it establishes colleges that provide, in addition to theoretical knowledge, the specialized training in agriculture, engineering, manufacturing, and other applied fields indispensable for rebuilding the nation after the ravages of war. In 1863 President Lincoln signs a bill establishing the National Academy of Sciences to advise the government on scientific matters.

A Special Advertising Section By

*Carnegie*  
CORPORATION  
OF NEW YORK

BILL & MELINDA  
GATES foundation

Co-sponsors of the TIME Summit on Higher Education

MILESTONES  
IN THE HISTORY OF U.S. HIGHER EDUCATION



President Franklin D. Roosevelt signs the GI Bill to help World War II veterans further their education. The bill fuels the growth of the middle class by making colleges and universities more affordable to people from all socioeconomic backgrounds. Nearly half the 16 million World War II veterans benefit by the time the original bill ends in 1956. Later bills enacted during the wars in Korea, Vietnam, Iraq, and Afghanistan help millions more veterans pay for higher education.

150 YEARS  
OF INVESTING IN KNOWLEDGE AND PROGRESS

President Harry S. Truman establishes a **Commission on Higher Education**. The commission proposes sweeping changes to ensure a strong democracy and enrich the lives of citizens, including the doubling of college attendance by 1960, the elimination of racial and religious discrimination in college admissions, and the development of two-year community colleges, which today enroll nearly 8 million U.S. undergraduates.

1946

*Carnegie*  
CORPORATION  
of NEW YORK

BILL & MELINDA  
GATES foundation

MILESTONES  
IN THE HISTORY OF U.S. HIGHER EDUCATION

# 1950

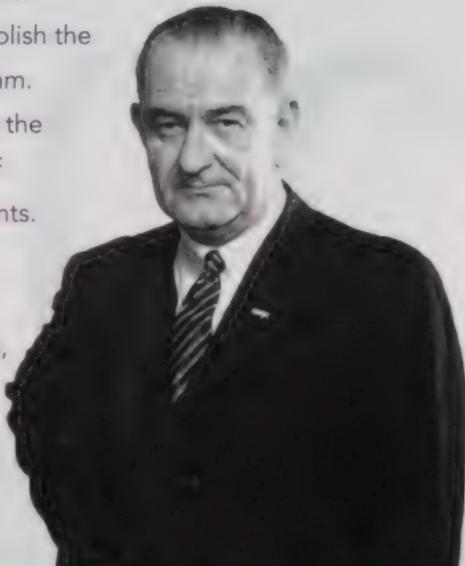
President Truman signs a bill establishing the National Science Foundation. The bill is a response to a report urging the federal government to begin funding scientific research primarily through the nation's universities and research institutes instead of government and industry and leads to the investment of billions of dollars toward improving the health and prosperity of the United States.

150 YEARS  
OF INVESTING IN KNOWLEDGE AND PROGRESS

President Lyndon B. Johnson signs the Higher Education Act to establish the first major federal student aid program.

President Richard M. Nixon expands the program in 1972 with the creation of Pell Grants for low-income students.

In the years since, more than \$270 billion in grants has been awarded to an estimated 138 million students, many the first in their families to go to college.



1965

*Carnegie*  
CORPORATION  
of NEW YORK

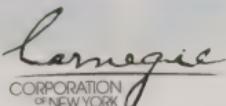
BILL & MELINDA  
GATES foundation

MILESTONES  
IN THE HISTORY OF U.S. HIGHER EDUCATION

# 2013

The next president must take bold steps to ensure America's strength as a democracy, resilience as a nation, and competitiveness in a global economy. Success demands the **mobilization of all segments of our society**—government, corporations, organized labor, philanthropy, and nonprofits, as well as colleges and universities. Only with vision and courage can the **next president** achieve what Lyndon Johnson articulated so well: "For the individual, education is the path to achievement and fulfillment; for the Nation, it is a path to a society that is not only free but civilized; and for the world, it is the path to peace—for it is education that places reason over force."

A Special Advertising Section By



BILL & MELINDA  
GATES foundation

Co-sponsors of the TIME Summit on Higher Education

[carnegie.org](http://carnegie.org) | [gatesfoundation.org](http://gatesfoundation.org) | #RethinkCollege

aware of the government's income-based repayment plan, which lets many students cap their monthly payments at 10% or 15% of their discretionary income.

Education is the key to success in America. It is critical to a strong middle class and remains one of the best investments for individuals and the nation. For America to remain competitive, we must tackle the college-affordability crisis head on and ensure that student loan debt does not become the next housing bubble.

*Harkin is a U.S. Senator from Iowa and the chairman of the Health, Education, Labor and Pensions Committee*

## Protect Innovation from The Fiscal Cliff

BY HUNTER RAWLINGS

SEAT BELTS, GPS, TOUCH-screens, MRIs, biotechnology, Google—rare is the day when you don't use inventions that U.S. research universities had a strong hand in developing. It's no wonder that economists credit these and other technological advances with being responsible for as much as 50% of U.S. economic growth in the second half of the 20th century.

All of this stems from the federal government's making a small investment—less than 2% of its budget—in university and other basic research. But even that amount of funding is threatened by the budget stalemate in Washington. The federal govern-

ment is about to commit an utterly foolish act: mindless, across-the-board budget cuts, scheduled for Jan. 2, that will directly affect our nation's innovative capacity. According to the Information Technology & Innovation Foundation, a nonpartisan tech-policy think tank, these cuts would reduce research funding by so much that the resulting loss of innovation is projected to lower GDP by hundreds of billions of dollars over the next decade.

Only Congress and the President can stop this from happening. As former Lockheed Martin CEO Norman Augustine has said, when you need to trim weight from an airplane, you don't remove the engines. For us to maintain the best research universities in the world, we need to sustain the nation's investments in research and higher education. Cutting funding for research will do little to balance the budget in the short term and will be calamitous over the long haul.

*Rawlings is the president of the Association of American Universities*

## Partner with the Private Sector

BY WALTER BUMPHUS

COMMUNITY COLLEGES ARE the least glitzy, most proudly diverse and most stubbornly egalitarian workhorses of American public higher education. With a modest average tuition of \$2,963 per year, these two-year colleges

BILL HASLAM  
Tennessee Governor

'Instead of funding public colleges and universities based on enrollments, states should use a formula that pays institutions for success in key areas like completion of degrees. That's what we're doing in Tennessee.'

quickly prepare students for careers (and often serve as a springboard for those seeking a degree at a four-year institution). State and local governments get an estimated 16% return on investment for every \$1 they spend on community colleges, along with the societal benefits of having a better-educated, higher-earning workforce.

But since the 2006 fiscal year, 43 states have decreased higher-education appropriations per student, which is especially significant for community colleges, since state support, combined with local taxes, represents more than half these institutions' revenue.

Yes, community colleges can operate more efficiently. They can no longer afford to offer boutique programs with limited demand or practicality, and they must ensure that the courses they do offer fully align with workplace needs. But this is also a question of resources, and in an era of tight government budgets, the private sector has to step up. While corporations such as Siemens, Verizon, UPS and Goldman Sachs are already working with community colleges to help bridge the skills gap, such partnerships have to increase in scale and scope. The stakes are high, but increased collaboration can help reduce income inequality, revive the middle class and provide an economic engine for national recovery.

*Bumphus is the president and CEO of the American Association of Community Colleges*





BY SUPPORTING OUR MILITARY, AUTO DEALERS GIVE  
A WHOLE NEW MEANING TO SERVICE DEPARTMENT.



From assisting with food and utility bills to raising funds for wounded warriors, auto dealers have served the military and their families with pride and passion. As the presenting sponsor of the TIME Dealer of the Year award, Ally salutes America's dealers for looking after those who look after all of us. Visit [AllyDealerHeroes.com](http://AllyDealerHeroes.com) or scan the QR code to learn more about our nation's generous auto dealers.

#AllyDealerHeroes

©2012 Ally Financial. All rights reserved. TIME is a registered trademark of Time Inc.

**ally** AUTO.



# THE NEW AGE CONSUMER

Empowered by mobile technology and social media, auto buyers are the most informed consumers in history.

Here's how these trendsetters are helping to reshape the industry

**210HP**  
**4SEATS**  
**25/33 MPG**  
**3,050 LBS**  
**AWD**  
**\$\$\$**



REVIEWS



CAR SPECS



DEALERSHIPS



FIND CARS



**Y**OU MIGHT NOT think of it this way, but we all live in a perpetual purchase funnel. It's a complex state of being for the new-car buyer. Armed with seemingly limitless megabytes of information, American consumers can research nearly anything—from car ratings and reviews to safety features and financing options—so when they get to the dealership, they're better equipped to test-drive and negotiate a sale than at any point in automotive history. "The consumer is more powerful today than ever before," says Nick Plakoris, an auto industry expert and executive director of research and insights at Time Inc. "They go into a dealership so well-armed, they could sell the cars themselves."

For the most part, the tools driving this consumer empowerment fit in the palm of your hand. Mobile devices with auto-specific apps that allow you to find dealers with the model

**"ACCESS TO NEW-VEHICLE INFORMATION THROUGH THE INTERNET AND APPS ... IS HAVING A GREATER IMPACT ON MANY ASPECTS OF THE PURCHASE DECISION THAN EVER BEFORE."**

Arianne Walker, J.D. Power and Associates

you want, and calculate retail and trade-in costs, are game-changers. So are social media sites, where the latest vehicle and dealership buzz spreads from affinity groups to Facebook pages to prospective buyers in a click or two. The sites have become an integral part of the purchase process. A recent global survey of 8,000 car buyers by Capgemini found that 71% of respondents likely would purchase a vehicle from an automaker or dealer if they found positive comments on social media sites.

In early October, two newly released studies showed we are all riding the mobile wave. According to the Pew Research Center's Project for Excellence in Journalism, half of all U.S. adults now have a mobile connection to the Web through either a smartphone or tablet. At the center of the recent growth in mobile, says Pew, is the rapid embrace by Americans of the tablet computer, with nearly a quarter of U.S. adults, 22%, now owning a tablet device, double the number from a year earlier. Even

more U.S. adults (44%) have smartphones, the survey said, up from 35% in May 2011.

Against this backdrop of extraordinary growth in mobile devices, the *J.D. Power and Associates 2012 New AutoShopper Study* reports that one in five new-vehicle buyers who use the Internet in the automotive shopping process access the Internet with tablets and smartphones. The study analyzes how new-vehicle buyers use digital devices—computers, smartphones and tablets—and which websites and apps are used to gather information prior to purchase. Overall, the AutoShopper survey revealed, 79% of new-vehicle buyers use the Internet to research their vehicle purchase.

## DIGITAL NOMADS

A variety of tech gear is being used by consumers to gather insights about the industry. While nearly all (99%) automotive Internet users use a desktop/laptop computer at some point in their shopping process, nearly 30% use multiple devices, including desktops, smartphones and/or tablets. "Access to new-vehicle information through the Internet and apps—obtained via personal computers, smartphones and tablets—is having a greater impact on many more aspects of the purchase decision than ever before," says Arianne Walker, senior director, automotive media and marketing solutions at J.D. Power and Associates. "It is important for brands and websites to provide consistency across their sites and apps, no matter what device is being used to access the information. The shopping experience should be equally usable and the shopping information equally complete, no matter the device."

While the J.D. Power survey shows

## THE INFORMATION EXPLOSION



Since the mid-1990s, consumers have gotten access to real-time information on auto buying from a deluge of sources

**1996**  
TV Ads  
Consumer Magazine Ads  
Friends/Relatives  
Business Brochures  
Consumer Reports  
Local Newspaper Ads  
Auto Articles (any source)  
Promotional Videos  
Computer/Internet  
Auto Magazine Ads  
Other

**2012**  
TV Ads  
Consumer Magazine Ads  
Friends/Relatives  
Business Associates  
Dealer Brochures  
Consumer Reports  
Local Newspaper Ads  
Auto Articles (any source)  
Radio Ads  
Manufacturer Websites  
Dealer Sites  
Third-party Sites  
Online Ads  
Auto Shows  
Auto Magazine Ads  
Auto Buyers' Guide  
Special Events  
National Newspaper Ads  
Social Sites  
Other

Source: i-NW Research

much of the Internet shopping was still occurring at home, among those using a smartphone, 59% said they do so at the dealership, accessing vehicle pricing, model and inventory information, as well as comparing vehicles. "This interplay between the dealership experience and digital information has become more intertwined with the availability of shopping content on mobile devices," says Walker. "Now that buyers can easily access information right from their pockets, it is essential that the dealers are as well versed as the shoppers in order to provide consistent information both online and in the dealership."

## STEWARDS OF THE COMMUNITY

**N**EW YORK MEETINGS SUPPORTED  
RELIGIOUS WORKERS, GIVING  
ARMED FORCES AND MILITARY WIVES  
HOLIDAYS TO CHILDREN AND CHILD CAREERS  
LITERACY, THE YOUTH AND AUTISM  
MILITARY CHARITIES FOUNDATION  
(NYCFC) works primarily to support  
organizations that benefit the community

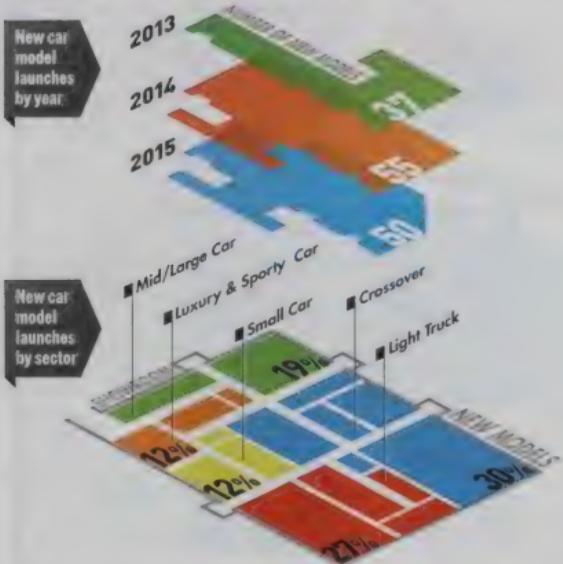
TO SUPPORTED RELIGION  
Commitment to 100% New York  
military families from now to 2012  
America and industry leaders like  
Associated General Contractors of America  
and groups of 100 firms. United Way  
members are the Autism  
Alliance, the Economic Round Table  
and Frank E. McCollum Memorial Fund

TO SUPPORT THE AUTISM COMMUNITY  
More than 100,000 families in New York  
have autism and 10,000 children  
having something from health services  
and autism to job training for  
adults with autism. The Autism  
Research Fund provides a connection to  
many members of NYC's research and  
policy makers. The City of New York

is experienced in 2009 to identify  
over 400,000 autism cases. New  
York City Councilman Andrew  
Lanza, a former legislator, is a  
co-founder of the Autism  
Research Fund, which is a  
nonprofit organization that  
provides a connection to  
many members of NYC's research and  
policy makers. The City of New York

## COMING TO A SHOWROOM NEAR YOU

After a four-year lull, 142 new-model car launches are expected by 2015



Source: *Car Wars*, BofA Merrill Lynch Global Research

## AUTO DEALERSHIPS 2.0

How is this prodding auto dealers to reinvent the showroom experience?

"With the increase of digital media, customers are able to access information 24/7, 365," says Judith Schumacher-Tilton, a finalist for the 2012 TIME Dealer of the Year award. "It becomes imperative for dealerships to stay ahead of the curve, focus on transparency and provide substantive answers to the customer's questions," she explains. In this customer-centric universe, Schumacher-Tilton says, "it is a key way to gain the customer's trust and an opportunity to earn their business."

Today dealers and their stores leverage social media (Facebook, Twitter, Tumblr and a host of apps) to build and engage communities through special promotions, couponing and sales events, by

**IT'S THE MILLENNIALS—MASTERS OF MOBILE TECHNOLOGY—WHO WILL BE RESHAPING THE AUTO BUYERS' MARKET IN COMING YEARS. ALREADY, THEY'RE BUYING ONE IN FOUR CARS SOLD IN THE U.S.**

reengineering websites for tablets and by adapting every consumer touch point for the mobile shopper. From booking showroom and service appointments online to soliciting feedback over the Web, to using apps like ClearMechanic, which lets dealers and service shops explain repairs with real-time photos and illustrations, the interaction between today's customers and dealers empowers both buyer and seller like never before.

## CARS OF THE FUTURE

In the months ahead, all forms of market intelligence will become more vital than ever. That's because after a four-year lull, a record-breaking 142 new-model car launches are expected by 2015 (see chart). *Car Wars 2013–2016*, a report by John Murphy, an equity analyst for Bank of America's Merrill Lynch brokerage unit, estimates that 37 new models will hit showrooms next year, followed by 55 launches in 2014 and 50 more in 2015.

What'll those launches look like? Try small and green. The average fuel economy for new cars sold in the U.S. rose to its highest level ever in August, according to the WardsAuto Fuel Economy Index. That lifted the fuel-economy rating for all light vehicles to its fourth-highest to date; the improvement, reports WardsAuto, was spurred by an increase in small-car sales, which accounted for more than 20% of the market for the first time since March. Large cars made up just 1.38% of light-vehicle deliveries, the segment's lowest share ever.

Looking ahead, WardsAuto reports that over the next three years, the boost in U.S. new-vehicle sales, including models undergoing major redesigns, will come from midsize cars and crossover/utility vehicles. In fact, WardsAuto expects nearly 60% of all-new and revamped products introduced in the 2013 time frame to come from those two segments, despite high fuel prices and impending stricter Corporate Average Fuel Economy (CAFE) standards.

Experts say it's the millennials—masters of mobile technology—who will be reshaping the auto buyers' market in coming years. Already they're buying one in four new cars sold in the U.S., according to Deloitte's 2012 Gen Y Automotive Survey. Over time their clout will rise, as the survey



Your foot just got a lot

# more handy.

**The all-new Escape features an innovative, class-exclusive foot-activated liftgate.**

Introducing a liftgate you open and close with your foot. Perfect for those times when you've got your hands full. And yet another reason to check out the stylishly capable, tech-savvy, totally reimagined 2013 Escape. It's ready for anything. [ford.com](http://ford.com).

THE ALL-NEW 2013 **ESCAPE**



Based on Small Utilities vs. 2012/2013 competitors.



Go Further

## AUTO INSURANCE 2.0

Snapshot, a revolutionary insurance offering from Progressive, gives drivers the chance to get a personalized insurance rate based on their driving habits.

Snapshot is free, and you don't even have to be a Progressive customer to try it. And, seven out of 10 drivers who've tried Snapshot found they could save money—up to 30% off their traditional rate.

The Snapshot device, featuring a sleek design that houses the latest in telematics and mobile technology, plugs in to a car's onboard diagnostic port, enabling drivers to share their safe driving habits with Progressive. Snapshot is a game changer that puts insurance squarely at the center of today's interconnected world.



**PROGRESSIVE**



Whizzing and deeing:  
Auto enthusiasts all  
abuzz at this year's  
auto show in Detroit

projects this group will represent 40% of all new-car buyers in 10 years. No surprise: "Gen Y consumers prefer automobiles that are an extension of their social media and digital lifestyles," reports Joe Vitale, global automotive sector leader, Deloitte Touche Tohmatsu Limited.

What's on Gen Y wish lists? Vitale says in-dash tech is the most important part of a vehicle's interior for 59% of millennial respondents, with almost three-quarters seeking touchscreen interfaces. Many of these consumers (72%) also rank smartphone applications as highly desirable in a new automobile. Notably, they also want to be able to customize interiors after purchase with embellishments like tech features. The marketplace offerings boggle the mind, as this sampling of in-car high-tech infotainment systems suggests: Toyota (Entune), Ford (MyFord Touch), Cadillac (CUE), Chevrolet (MyLink), Lexus (Enform), Chrysler (Uconnect) and Hyundai (Blue Link). In addition, says Vitale, "Gen Y consumers are willing to pay for technology that can help them better manage all the distractions created by connectivity." On average, "they will shell out approximately \$2,000 for a bundle of safety features like collision-avoidance systems, blind-spot detection and sleep-alert systems," he explains. "In fact, Gen Y respondents graded safety bundles as

their second most important priority, right behind technology bundles."

Regardless of age, according to recent GfK Automotive research, interest in small cars has increased for car buyers, but small isn't everything. Combined, generations Y and X accounted for 63% of new-vehicle purchase intenders in 2011. The research shows, however, that these car buyers aren't focused just on economy and fuel efficiency; they also place a high priority on things like fun-to-drive, safety, technology-enabled and whether the vehicle makes them feel successful. "If manufacturers are going to capture the hearts and wallets of this growing generation of younger consumers," says Jeff Campana, senior vice president at GfK, "they'll need to develop vehicles that appeal to their tastes and preferences."

### SHOWS OF EMPOWERMENT

Despite consumers' tech obsession, there's nothing like the experience of seeing a car in living color to kick the tires, get behind the wheel and gauge if it is the right fit for one's tastes and needs. That's why the perennial auto show is gaining in popularity among consumers of all ages. Every year car dealers across America and their state and metro associations put on 60-plus auto shows for folks looking for a massive showroom to do comparison shopping. "Today the newest

WITH SNAPSHOT, GREAT DRIVERS  
GET GREAT SAVINGS. HOWEVER,  
GREAT TRIANGLE PLAYERS WILL  
STILL GO UNRECOGNIZED.  
NOT THAT I'M BITTER.



IF YOU ASK ME, GOOD DRIVERS SHOULD BE  
REWarded - THAT'S WHY WE CREATED SNAPSHOT.

Plug it in your car, and your good driving could save  
you 30% with Progressive. We'll even let you try  
Snapshot® before you switch to us, so you've  
got nothing to lose. Rewarding good drivers.  
Now, that's Progressive.



1.800.PROGRESSIVE PROGRESSIVE.COM

# TIME DEALER OF THE YEAR ally



# THE **REAL DEAL**

Mike Shaw, head of the Mike Shaw Automotive Group, which operates seven dealerships across three states (Colorado, Louisiana and Texas), was named the national TIME Dealer of the Year for 2012 at the annual National Automobile Dealers Association (NADA) Convention & Exposition in February. "I tell people it's like the Heisman Trophy of the car business," says Shaw, who was chosen to represent the Colorado Automobile Dealers Association. In the national competition presented in association with Ally Financial and in cooperation with NADA, Ally presents the national winner with a \$10,000 contribution to a nonprofit of his or her choice. Shaw picked the Denver area Boy Scouts. "I like supporting good gangs," he says, "instead of paying taxes for bad gangs in prisons." Shaw's donation went to an initiative dubbed Assistance Individuals, which ensures that no young person is denied the chance to be a Scout or go to Scout camp. Explains John Cabeza, scout executive/CEO, Boy Scouts of America Denver Area Council: "We earmark money for the assistance of individuals for any time there is a financial need; this summer, for example, 67 boys went to camp through this gift that Mike has designated." To spotlight contributions of dealers like Mike Shaw, Ally has launched a digital hub—[allydealerheroes.com](http://allydealerheroes.com)—featuring stories of dealers across America and their caring community works. They are the real deal.

cars are such high-quality vehicles, and so varied and technologically advanced, consumers come in droves for the same reasons they did in the early 1900s—to get to know the latest cars firsthand,” explains Mark Schienberg, president of the Greater New York Automobile Dealers Association (GNYADA), which produces the New York International Auto Show each April.

"It's at an auto show where you fall in love," says Rod Alberts, executive director of both the Detroit Auto Dealers Association and the North American International Auto Show in Detroit's Cobo Center each January. Plenty of people agree: At the 2012 Detroit show, attendance topped 770,000, the highest since 2005. Similarly, at the 112th edition of the New York show in April, more than 1 million visitors meant a 12% year-over-year increase from 2011. The nation's largest publicly attended auto show featured every type of vehicle imaginable and included 62 unveilings.

Unlike shows of yesteryear, these attractions have morphed at an incredible pace. They are fully interactive experiences where attendees can use apps and mobile devices to do tactical research. At the Detroit show, people use a new mobile site tailored to on-the-go audiences to navigate the floor with a detailed map, learn more about manufacturers and sponsors, and connect with other enthusiasts via social media. Similarly, the New York show catered to mobile consumers and pushed out 196 million social communications, an increase of four-and-a-half times over the year before, according to Schienberg. As he explains, the goal is to connect with

consumers all the time, by talking to them before, during and after the show, giving them updates on just about everything—from featured events and exhibits to car models and updates on the industry.

According to attendee research, Schenber says, the show experience really drives the purchase process and showroom visits. "Some 78% of people who came to the New York show in 2011 said they're interested in buying a car in the next two years, with 44% saying the next 12 months," he says. "And a huge 63% said the auto show helped them make the decision of the model to put in their consideration set."

## THE ROAD AHEAD

Is all this empowerment, portability and personalization making a difference in the marketplace? You bet it is. As summer turned to fall, eight carmakers were approaching North American production records. Despite a sputtering economy, general consumer queasiness and rising gas prices, Paul Taylor, chief economist for the National Automobile Dealers Association (NADA), credited old standbys—like consumer-friendly low interest rates, ample inventories and healthy incentives—for an overall U.S. car market well on the rise for 2012, with 2013 expected to continue the trend. So look up from the glowing screen in your hand and shake hands with a dealer. You may soon be in the driver's seat in this newly empowered world. •

To advertise in our NADA sections, contact Jordan Keyes at 212.522.8467. For reprints, call PARS at 212.221.9595, ext. 437.



DESIGNED IN MICHIGAN.  
BUILT IN ILLINOIS.  
DRIVEN IN AMERICA.

THE END.



DODGE  
**DART** //

NEW RULES

# Upgrade your playlist with Bose sound.



## The Wave® music system III with a dock for your iPod.®

You really love your iPod. Now there's a reason to love it even more. Take every song on your playlist and bring it to life out loud with the acclaimed sound of the Wave® music system III. The optional dock for your iPod makes it easy, even charging your iPod or iPhone® so you can pick it up and go.

The Wave® music system can bring new life to all your music, including CDs and radio. This is a complete, high-performance system that includes a clock, dual alarms and a handy remote that also controls key iPod features like playlist navigation. Or you can simply touch the top to turn the system on and off, or snooze the alarm. Take advantage of our 30-day, risk-free trial. Ask about **making 12 easy payments**, with no interest charges from Bose. Order the Wave® music system III with the dock for iPod and hear your playlist like never before. With the performance of Bose, the most respected name in sound.

**FREE SHIPPING**  
with your order.

To order or learn more:  
**Bose.com/connect**  
**1-800-411-8072,**  
**ext. TZ450**

Minimum 12 monthly payments required. Interest charges must be paid on all purchases. \*Bose payment plan available on orders of \$209-\$1500 paid to major credit card companies. Financing offers may not be available for select products. See website for details. Down payment is 1/12 the product price plus applicable tax and insurance charges. Amount paid on your order is shipped. There, your credit card will be billed for 1/12 equal monthly installments beginning approximately one month from the date of your order. Interest charges from Bose. Credit card rates and interest may vary. U.S. residents only. Excludes Bose products purchased from a reseller. ©2008 Bose Corporation. All rights reserved. The Wave logo, the Wave music system, and the Wave logo are trademarks of Bose Corporation. Financing and free shipping offers not to be combined with other offers or used to pre-pay purchases. Interest charges will apply. Interest rates and terms are subject to change. iPhone and iPod are trademarks of Apple Inc., registered in the U.S. and other countries.

**BOSE**  
Better sound through research



# The Culture

**64 POP CHART** Taylor Swift's evolving sound / **66 ART** Ai Weiwei's truth commission / **70 MOVIES** Adapting unadaptable novels; 007 by the numbers

# Pop Chart



CASTING EDITION

GOOD WEEK/ BAD WEEK

## Bette Midler

Accepted an onstage offer from Ryan Murphy to guest-star on *Glee*

**ANGELINA BYRNE**  
Reportedly fumed over missing out on Lindsay Lohan's roles before having a Lohan-esque meltdown

BRANDING  
Haute  
Coffee

Want to spend even more money on your overpriced latte? Starbucks has heard your cries and teamed with design duo Rodarte for specially created tote bags, coffee mugs and reusable cup sleeves. Luckily, they're not that pricey: items retail for \$4.95 to \$12.95.



## NOT-SO-ROUGH DRAFTS

More than a dozen of Gian Lorenzo Bernini's sculptures adorn the Vatican's St. Peter's Basilica, both inside and out. But before the 17th century artist crafted such grand figures, he fashioned miniatures out of clay. These bozzetti ("sketches" in Italian), more than 50 of which are on display at the Metropolitan Museum of Art in New York City through January, offer an intimate, fascinating glimpse into Bernini's thought process as he conceptualized his masterworks.



## LOL

## Knowledge Is Power (and Also Hilarious)

Leave it to the *Onion*, the self-styled "finest news source" in the U.S. to create the snappiest reference book this side of Jon Stewart's *America*. The 244-page tome sends up everything from adoption to ZZ Top. Here are three choice entries:



"Bride: a vanity of delusional person. (See: Groom, College Graduate, New Parent, Freelancer.)"

"Gold: soft yellowish metal best suited for augmenting fat, hairy chests."

"World's Fair: international exhibition series filled with lies about the future."

## QUICK TALK

## Taylor Swift

At 22, she has the kind of career most artists chase for decades: six Grammys, countless chart-topping singles and more than 22 million albums sold. But Swift still unwinds like the rest of us. "I'll lie in bed with my cat and watch *Law & Order*," she says. "Then I'll order food and eat it." Here the Nashville dweller—whose new album, *Red*, drops Oct. 22—lets loose with TIME. —DAN MACSAI

You experiment with pop, rock and even dubstep on this album. But you're known as a country artist. Are you worried how fans will respond? Almost every time I put something out, there's the word *too* put in front of it—to pop, too country, too rock. So I've kinda stopped worrying about it. I'd rather be too something than not enough something. People love to guess which boys you're singing about. [Swift has been linked to John Mayer and Jake Gyllenhaal, among others.] Does part of you enjoy that? Well, I don't really read any of it. Really? The only way I hear gossip is if it's big enough and loud enough for my friends to bring it up to me. Or if it's, like, a big untrue ordeal from my publicist. It makes my life a lot more livable. It's almost Election Day. Are you following the race? I try to keep myself educated and informed. But I don't talk politics, because it might influence other people. And I don't think I know enough yet in life to be telling people who to vote for. You've got lots of nicknames—Swift, T-Swift, etc. Are there any you secretly hate? When I was on the Brad Paisley tour, they called me Tater Tot. And the name on my dressing room was changed to Tater Swift every single day. It was like being teased by your big brother.



KODAK PLUS-X PAN FILM



VERBATIM

Just think employment is really important... So, as of now, Mitt Romney.

LINDSAY LOHAN.

—quoting herself in an unapologetic interview the Republican nominee for President had not yet seen—“I’m not ‘Hotter than Hell’ but I’m ‘More of a Celebration’ now,” according to a recent press release.

**CONCRETE JUNGLES** Despite being born a world and 10 years apart, photographers William Klein of New York and Daido Moriyama of Tokyo have a similarly urgent, gritty and visceral style of photography. Both document the many facets of urban life—as in Klein's *School's Out, Dakar* (above). Their work is on view at London's Tate Modern through Jan. 20. For more, see [lightbox.time.com](http://lightbox.time.com).

## MUSIC

### Tweet Me a Love Song

Forget funding rounds and IPOs. The real mark of a product's success is when it's name-dropped in a popular song, as photo-sharing app Instagram so publicly (and amusingly) learned this month, courtesy of Fat Joe. To honor that milestone, we pinpoint how other recent tech sensations made their pop debuts.

3 THINGS YOU DON'T HAVE TO WORRY ABOUT THIS WEEK

1. What to drink while blasting pop-rock hits of the 2000s. A wine company owned by "Hey, Soul Sister" crooner Train has unveiled a new varietal, dubbed Hella Fine Merlot.

2. Ricky Gervais' resurrecting his Golden Globes sh!ck. After three years, the British comedian hands over the Hollywood mocking duties to Tina Fey and Amy Poehler, who will co-host the January 2013 awards show.

3. A meme drought. The Internet erupted with gifs and photos mocking Mitt Romney's "binders full of women" comment during the Oct. 10 debate.



"You don't answer when I phone ... / So I'm sending my heart, my soul!"

Britney Spears, "E-Mail My Heart"



"Bouncin' me from satellite to satellite / I love the things you do for me so late at night"

\*NSYNC, "Digital Get Down"



"Just click approve, come on girl / Baby I'm one of a kind" Gym Class Heroes, "New Friend Request"



"I be pullin' all the chicks / They follow me like Twitter"

Chris Brown, "Follow Me (Like Twitter)"



"Instagram that jet, Instagram these kicks / Boue on my wrist, Instagram that bitch"

Fat Joe, "Instagram That Hoe"





# Cultural Revolution Ai Weiwei revives what China forgets

By Richard Lacayo

IT'S CUSTOMARY BY NOW TO DESCRIBE Ai Weiwei as a dissident artist—which he is. His body of work is a decades-long critique of China's headlong attempt to become a modern economy without becoming a free society. If anything, he's more famous lately for his activism than for his art. And no doubt he's fine with that. What you learn from his new retrospective at the Hirshhorn Museum in Washington—his first in the U.S.—is that increasingly his art is inseparable from his activism. His work of recent



1.

2.

dynasty urn and letting it smash, as if to say, Who cares anymore? Later he used timber from demolished temples from the Qing dynasty (1644–1912) to build maps of China. It was the work of a man fluent in the usual streams of contemporary art—minimalism, conceptualism, installation art—and applying them to the contradictions of a communist state going capitalist at warp speed.

In all of this, Ai was critical of the new China but not enough to bring on cops with billy clubs. Things changed after the May 2008 earthquake in Sichuan province, where more than 5,000 children died in collapses of shoddily constructed schools. When authorities refused to look into the building failures or even acknowledge the death toll, Ai lent his support to a citizens' investigation by ordinary Chinese people. Consequences followed. In 2009 police in the city of Chengdu severely beat him, leading to a near fatal cerebral hemorrhage a few weeks later. The government shut down the invaluable blog he used to preach the gospel of human rights. Last year he was seized by the police and held for 81 days. The authorities insist they went after him for tax evasion, not for political reasons. That claim is, to put it mildly, contrived.

years is a succession of blows against the empire, a sustained demand that China's government take seriously ideas like human rights and freedom of speech. It's a brave and essential stand, even if you come away more impressed by the man than by some of what he's made.

When Ai, 55, first gained attention in the mid-1990s, it was for art that cast a cold eye on China's willingness to despoil its past in its rush to the future. He famously photographed himself dropping what he said was a 2,000-year-old Han-

Ai was born to be an outsider. Not long after Ai's birth in 1957, his father Ai Qing, a prominent poet, was denounced as a bourgeois rightist and exiled with his family to the provincial northwest. Ai Weiwei returned to Beijing in 1976, then five years later moved to the U.S., eventually to New York City. During more than a decade in Manhattan, he came to grips with the work of Marcel Duchamp and Jasper Johns, hung out with Allen Ginsberg and saw the AIDS warriors of ACT UP in action.

Ai may have learned something from ACT UP's famous battle cry, Silence = Death. The Hirshhorn show begins with a memorial to the earthquake victims that breaks the official silence around them in the simplest possible way. It's a vast wall chart listing their names, birth dates and other particulars that Ai's investigation pieced together in the face of government stonewalling. Is it art? He knows that Duchamp settled that question long ago: art can be anything an artist does, a doctrine that can invest even a dogged search for truth with a touch of the metaphysical. From speakers above the wall chart, voices pronounce each name, one at a time, a sound-art piece

for which Ai recruited people via the Internet. That's art too.

When Ai steps away from the issues that engage him as intensely, his work can feel underconceived. He likes to take useful objects and render them useless. For *Table with Two Legs on the Wall* (2008), he rebuilds a Qing-dynasty table into exactly that and arrives at a nifty image of the past struggling to position itself in a new world. When he aggregates a bunch of Qing stools into a standing circle, as he does in *Grapes* (2010), it produces... a standing circle.

But increasingly, everything he does is focused on things that matter to him deeply. One of the most powerful works in the show is *Straight* (2008–12), a minimalist floor piece made of 38 tons of steel rebar—thousands of metal rods that had been embedded in the concrete of the collapsed schools in Sichuan. Over a period of years, Ai and his assistants retrieved the twisted rods and painstakingly straightened each one. Arranged across a gallery floor in shallow, undulating piles, they form an enigmatic topography. If the unbending implies an attempt to deny the memory of the earthquakes, the rusted rods lined up like so many little corpses also pulls the tragedy back into historical memory and gives it literal weight, the kind that won't just go away.

To the immense frustration of the Chinese government, Ai won't go away either. During his detention last year, they lifted his passport, so he wasn't able to be in Washington for the opening of his show at the Hirshhorn. (In D.C. through Feb. 24, the show moves later to Indianapolis, Miami, Toronto and Brooklyn.) No matter. If he wants to, he'll find a way to use even that latest obstacle to his freedom in his work, which is increasingly just the physical by-product of his most recent confrontation with the authorities.

That would describe *Brain Inflation* (2009)—paired ink-jet prints of his hospital brain scans after the cerebral hemorrhage. Silence may equal death, the work tells us, but speaking up comes with its own risks. The painful absurdities of life for a Chinese dissident should provide Ai with no end of material. But though his activism may sometimes seem like a kind of performance art, the consequences are never less than real. ■



### Q&A with Ai Weiwei

TIME's Austin Ramzy recently met with Ai at his Beijing studio for a wide-ranging discussion on subjects that included his 81-day detention last year on suspicion of tax evasion, which was widely seen as retaliation for his public efforts to promote human rights and government accountability in China.





3.

4.

5.

What is the greatest  
risk in the process  
agent to agent  
control of agents?

On June 22, the end date of my one-year period of probation, the police told me, "Your case is closed. You're a free man. We have nothing to charge you with because you behaved very well this year." which, I admit, was a

surprise. I think I violated every rule they set, but you can see their attitude was to be finished. Maybe it became clear to them that we are not an agent of any foreign interest group that wanted to subvert state power.

It was never about  
black and white  
and although no  
truly did well there

about being  
able to return?

There are so many cases of people being blocked from returning. I always think, Why should they do that? It is not good for them. It is not good for anybody. Every decision I make, I always try to say the opposition has the possibility to change. Otherwise,

why would you still fight?

How did your years in  
the U.S. influence your  
view now that they  
asked you to

The American experience influenced my understanding of individuality, basic human rights, freedom of expression and the rights and responsibility of citizens.

about the  
country you're  
coming from?

It has clear content and a very specific expression. And it reaches people. It is hard to shake. It is very solid. It makes young people recognize themselves as a group and have a new way of looking at political conditions. And it exists in many forms—sound, documentary. There

were two documentary films about it. To me, it is art.

the documentary  
was a response to your  
experience in the U.S.

It always comes later. When you give it some thought and it starts to come back, it asks you to do something. I am sure work will come out of this. We've already started that part.

# Movies

## The Screen's the Limit. *Cloud Atlas* and the lure of unfilmable books

By Lev Grossman

WHENEVER I HEAR ABOUT DIRECTORS preparing to take on so-called unfilmable books, I find myself filled with anxiety. When I heard that Lana and Andy Wachowski, the siblings behind the *Matrix* movies, were attempting to adapt David Mitchell's labyrinthine novel *Cloud Atlas*, I wanted to call them up and beg them to put the book down and back away slowly. Don't do it. Why not make Richard Price's *Lush Life* instead? Great novel, eminently filmable, never been filmed. Nor has Donna Tartt's *The Secret History*. Or Neal Stephenson's *Snow Crash*. There's plenty of low-hanging fruit out there.

Also, while I've got you: How the hell did you persuade somebody to give you \$100 million to try? Whether or not *Cloud Atlas* the movie is any good, the pitch must have been a damn masterpiece.

A lot of the buzz around *Cloud Atlas*, which comes out on Oct. 26, is about how hard it is to turn this book into a movie—which it is. It's hard enough to read in the first place. Mitchell's novel consists of six separate stories, each set in a different historical period, each nestled inside the next, Russian doll-style. There's a corporate thriller, a caper in a nursing home, a future dystopia; the stories are interrelated thematically, but on a literal level they're connected only by leitmotifs and slender filaments of coincidence. The Wachowskis and their collaborator, Tom Tykwer (*Run Lola Run*), approached the challenge by dicing each story into individual scenes and then interleaving them with one another, effectively telling all six simultaneously.

You can see why they did it, and the reason says a lot about the differences between books and movies. Reading a book is a much less linear experience than watching a film. In a book you can flip back and forth, skim and reread, stop and start. You can pause the action and go back 100 pages to remind yourself who all the characters are and how they know one another, then forge ahead again. Movies, by contrast, are a forced march.

They never stop or slow down. In a movie you can't pause the story of a young clerk shipwrecked in the South Pacific, tell five other stories and then go back to the first one two hours later and expect the audience to remember what was going on. Which is why in order to become a movie, *Cloud Atlas* had to turn from a Russian doll into something more like a braided ribbon. In the process, it loses the elegance of Mitchell's structural conceit, in which the stories get set and baited like steel traps, one by one, and then spring shut in an elegant cascade. But adaptation is never a lossless process.

For some reason, the basic incompatibility between books and movies is something that we—writers, filmmakers, audiences—have to discover and rediscover over and over again. It's as if we can't stop trying to jam an Ethernet cable into a USB port, even though, yeah, it really probably isn't ever going to fit. Having only just recovered from *Cosmopolis* and *John Carter*, we're bracing for *Cloud Atlas*, *Wuthering Heights*, *Life of Pi*, *Midnight's Children*, *On the Road*, *Anna Karenina*, *The Hobbit* (times three) and Ben Stiller's take on *Walter Mitty*, not to mention a new *Great Gatsby* (its fifth adaptation) and *Great Expectations* (there are about a dozen).

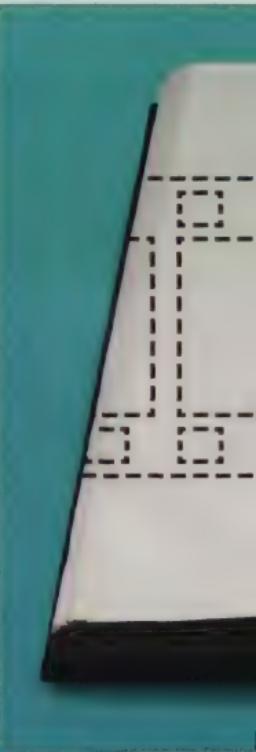
There are even rumors among science-fiction fans of the long awaited, almost-given-up-on adaptations of William Gibson's cyberspace opera *Neuromancer* and Orson Scott Card's *Ender's Game*, which is not unlike *The Hunger Games* but in zero gravity. There's a weird aura of manifest destiny around successful

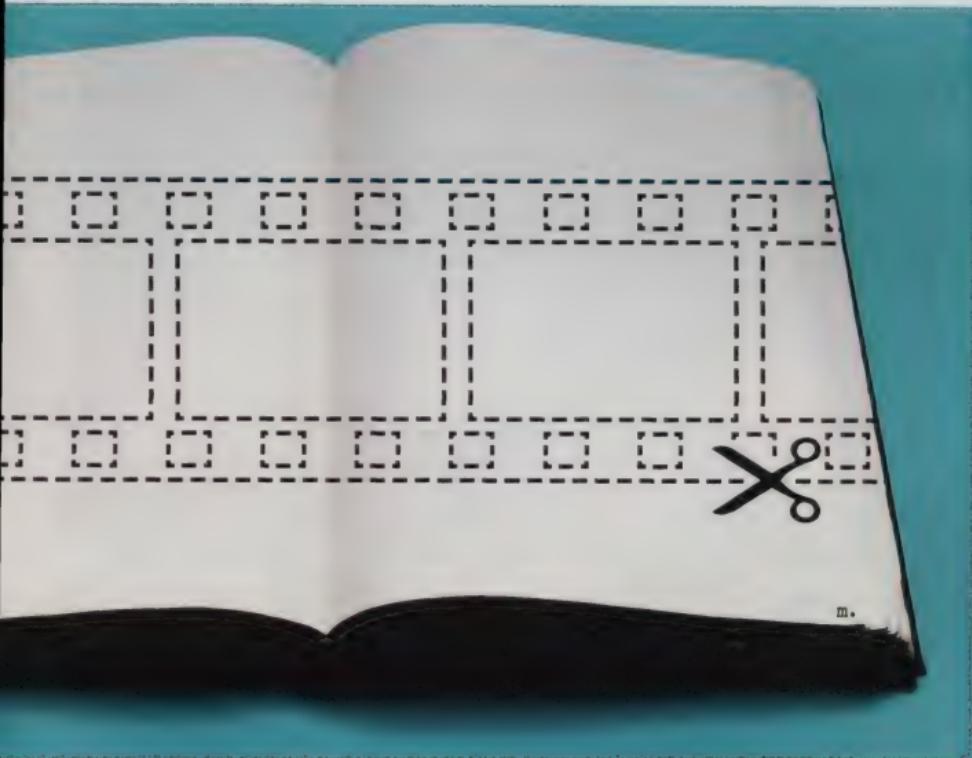
novels, a pervasive belief that they must progress through the stages of life and become movies, as the caterpillar becomes the butterfly: the movie industry treats narrative like a precious nonrenewable resource that must be carefully recycled and never just wasted on mere paper.

The problems aren't necessarily insoluble; they just require directors to confront in a hard-nosed way the differences between the two media. Most novels have too much plot in them to comfortably become movies. They're just not meant to be consumed in a single sitting. As a storytelling medium, movies have much more in common with short stories. Which is why I applaud the decision to largely amputate the story of Kitty and Levin, the less obviously dramatic couple, from the upcoming adaptation of *Anna Karenina*. It's a bloody business, but it's a question of saving the patient.

Likewise, directors have to improvise filmic equivalents to literary devices

**There's a pervasive belief that novels must progress through life and become movies, as the caterpillar becomes the butterfly**





rather than try to transcribe those devices directly onto the screen. Which is about as difficult as it sounds. To do it, the director needs a cinematic voice that's as strong and confident as the writer's written one. William S. Burroughs' *Naked Lunch* was considered too grotesque and chaotic to film when David Cronenberg took it on. In adapting it, he violated fidelity in any number of ways. Cherry-picking with both hands not only from the book but also from Burroughs' life, Cronenberg forced a cinematic coherence onto the

story that Burroughs' version lacked. The resulting movie's literal resemblance to the book is distant, but they share the same perverse, surreal integrity.

Perfect translation is impossible: a book, however deftly adapted, remains a book, and a movie must be a movie. My personal favorite "impossible" adaptation is *Tristram Shandy: A Cock and Bull Story*, Michael Winterbottom's take on Laurence Sterne's protopostmodern colossus. Winterbottom turns the story inside out into a movie about the making of a movie,

specifically an only moderately successful adaptation of *Tristram Shandy*. *A Cock and Bull Story* isn't just an adaptation; it's a bittersweet essay on the inherently failed, quixotic nature of adaptations—and as such, it's a miraculous success.

*Cloud Atlas* is also, in a weird way, a story about adaptation. Whether or not you consider it a success as a movie—I thought it was fatally flawed, but then again I thought the book had the same flaws—it's ingenious the way themes and ideas transmigrate from story to story, transcending their particular circumstances. The actors themselves float among narratives, assuming different roles in different periods; Tykwer has described them as "playing souls, not characters." It's a nice metaphor for adaptation, which could be considered the reincarnation of a story from one medium into another. But before something can be reincarnated, it first must die. The trick is not just to celebrate what survives but to mourn what is lost. ■

#### Against All Odds. Three adaptations that shouldn't have worked but did



NAKED LUNCH

Director Cronenberg used Burroughs' life story to bring order to his fever-dream novel



COCK AND BULL STORY

Sterne's 18th century epic became a film about rival actors trying to adapt ... *Tristram Shandy*



SCANNED DARKLY

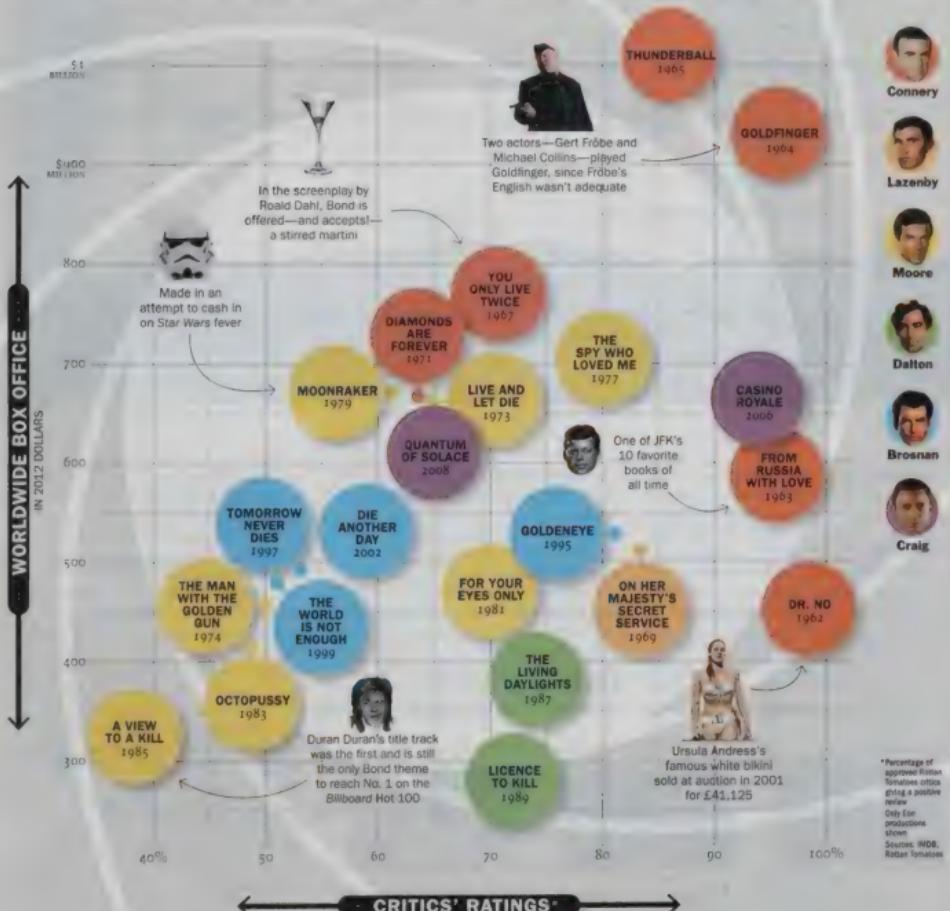
The movie rendered Philip K. Dick's narcotic vision in rotoscope animation

# Movies

## The Bond Market. Five decades of 007's hits, martinis and misses

By Lily Rothman

With the latest 007 movie, *Skyfall*, premiering Oct. 23 in London, we plotted each movie in the franchise according to critical acclaim and commercial success. The results: early entries *Thunderball* and *Goldfinger* got the top reviews and receipts, while *A View to a Kill*—despite the presence of Christopher Walken and Grace Jones—bottomed out on both counts.



★ ★ ★

# HONOR THE SERVICE OF THOSE WHO ANSWERED THE CALL TO DUTY



Carlos C. Aguirre  
\* Died in Vietnam  
\* from New Mexico

THE EDUCATION CENTER AT THE WALL  
WILL HONOR THE MEN AND WOMEN  
WHO SERVED IN AMERICA'S CONFLICTS,  
FROM BUNKER HILL TO BAGHDAD,



Casey Casanova  
\* Died in Iraq  
\* from Mississippi



Howard Akehurst  
\* Died in Vietnam  
\* from Washington

AND PRESERVE THE LEGACIES OF OUR  
AMERICAN HEROES FOR YEARS TO COME.



Matthias Hanson  
\* Died in Afghanistan  
\* from Kentucky



Rodney Yano  
\* Died in Vietnam  
\* from Hawaii

WHEN WE NEEDED THEM,  
THEY WERE THERE.  
NOW THEY NEED US.

DONATE TO THE  
VIETNAM VETERANS MEMORIAL FUND  
TO HELP BUILD THE EDUCATION CENTER.



Wilberto Sabalu  
\* Died in Afghanistan  
\* from Illinois

W W W . B U I L D T H E C E N T E R . O R G  
1 - 8 6 6 - 9 9 0 - W A L L ( 9 2 5 5 )



VIETNAM VETERANS MEMORIAL FUND

# Joel Stein



## I Do What I'm Polled

Politicians use polls to advise them on policy. Why shouldn't I?

**I** AM NOT A GREAT DECIDER IN CHIEF even though I have only one person to decide for. After college I sent a résumé to a magazine merely because I thought the editor was hot and wound up working for Martha Stewart for a year. I once dated a girl because five minutes into my conversation with her, a pet rat emerged from her bosom. Now my make-out résumé has an entry I remember only as Rat Girl. Also, whenever I get sick, I worry it's bubonic plague.

So I crowdsource as much of my life as possible. My lovely wife Cassandra gets furious because I follow her advice only after five other people say the same thing. Though, to be fair, I didn't start doing this until she bought me mandals and told me to wear them to the office.

**But what I long for is the accuracy** that politicians get from polls. They know how to feel about gay marriage, Social Security and immigration on the basis of precise numbers and can gauge how popular they will be if they express those opinions in different ways. So I was very excited when Toluna, a marketing-survey company, offered to let me poll its 1.5 million North American active users. I had a lot of things to ask America, but Toluna president George Terhanian told me America gets bored after 15 questions. So I edited my list down to the crucial topics, such as my career, raising my son and what to do about my massively receding hairline. In six hours, 1,000 people signed up online to answer questions about me, for which Toluna would charge \$2,000. I could have just asked a list of my friends for free on Toluna, except that I know my friends are not at all representative of real Ameri-

ca. I know this from Republican speeches.

America answered questions I had been needlessly torturing myself over for decades. Fifty-five percent did not want me to write columns about politics. But then I looked more closely at the results and realized that this was a key issue dividing our nation. Male America thought I should write more about politics, but female America thought I should focus on my family, followed by celebrities. Conveniently, my family contains a celebrity. I'm talking about me. And while a plurality of both men and women thought I use the word *penis* the exact right amount in my column, the valuable 18-to-34-year-old demographic wanted me to mention *penises* three times as much as people over 55 did.

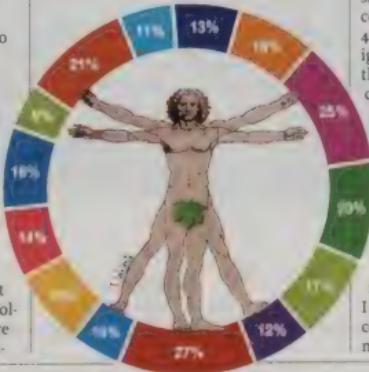
Americans of all demographics wanted me to send my 3-year-old son Laszlo to public school rather than private school and nearly everyone thought I should get Laszlo music

lessons over swimming, art or ballet—though the old people picked swimming over music by a narrow 0.7%. At first I thought this was because old people love swimming, which I know is true from *Cocoon*. But then I realized that old people just hate music because you can't understand a damn thing they're singing anymore.

But 11% of all respondents thought Laszlo should take a class in "other." I'm not a fan of including "other" in polls, since I never get to pick "other" in real life. There's no "other" on a menu or my income-tax forms. Cops never ask you if you want to take a Breathalyzer, go down to the station or "other." When the rabbi asked if I promised to love Cassandra in sickness and in health, if I had said, "Other," I'm pretty sure the wedding would not have proceeded.

**Living according to poll results seemed** easy: public school is free; Laszlo was excited about music classes; my editor said she thought *TIME* readers need my page as a break from political coverage; and *penis*. But I was a little nervous when I saw the responses to this question: "I am losing hair from the front of my head. Should I..." First of all, 30% said to shave my head—not realizing that when I did that once for a story, my lovely wife Cassandra said it made me look like "an accountant named Murray." Far worse, 48% said to "keep my same hairstyle and ignore it." Losing your hair is not something you can ignore like calls from the credit card company, or your children.

But if America wants to see the top third of my head, America is going to see it. I can't go back to making decisions based on the vagaries of my blood sugar, level of sleep deprivation, what my friends are doing and *penis*. Sure, if my goal were to please myself or follow a code of honor, then making my own decisions would make sense. But the point of everything I do is to make other people like me. Except for old people. They don't read this magazine, right?





# THE TIME ARCHIVE

**BE A PART OF HISTORY AS  
IT HAPPENED.**

The TIME Archive spans from 1923 to the present. Complete with original covers, articles, interviews, and easy-to-search categories. It's fast, fun — and free — for subscribers only!

**Print subscribers get instant access — FREE!**

**[time.com/archiveaccess](http://time.com/archiveaccess)**

# 10 Questions

## Native American poet and author Sherman Alexie on rain dances, alcoholism and Chief Wahoo

**In the first story of your book *Blasphemy*, the narrator says, "Whenever an Indian says he's traditional, you know that Indian is full of s---." Really?**

Yes. When you're colonized, you end up exploiting your own spirituality. You're subject to so many negative stereotypes, you embrace the positive ones. Non-Indians love us in that way. They think we're all priests and healers. After generations of being reviled and dehumanized, to be thought of as magical is pretty seductive.

**So, are you personally responsible for the Indian summer we're enjoying right now?**

I showed up here and it got warm—although it was raining last night. I probably shouldn't have danced.

**You write and speak about Native Americans, as you'd say, blasphemously. Most of your fans are white. Does that worry you?**

It's so funny. Every reading I do, there's always some big Indian guy in the back row staring daggers at me. One guy in Montana said, "You're a genius. You figured out what white people wanted, and you wrote

it." Yeah that's exactly what I thought back in 1987: What's going to make me really economically successful? Poems about Indian guys. I'm a capitalistic genius.

**Have you written things that you've come to regret?**

One poem. It dealt too much with real people and real circumstances. And now that book is out of print.

**You said getting poetry published inspired you to stop drinking. Should we put out more poetry magazines?**

Yeah, and they should all be called *12 Steps*. I don't believe in magic, but I do believe in interpreting coincidence exactly the way you want. I woke up after a tremendous bender, and the acceptance for my first book of poems was in the mailbox. For me, it was a call to get sober.

**Your father died of alcohol-related diseases. If he'd had early success, might he have had a different path?**

I joke that my father was the only Indian of his generation who went to Catholic school on purpose. He was a star, athletically, academically, musically. He was the Coeur d'Alene jitterbug champion of 1959. But in that era, Indians didn't go to college. On my first book tour—I'm Sherman Alexie Jr.—all sorts of his former [non-Indian] schoolmates came

Alexie jokes that his spirit animal is a squirrel because "everybody else picks predators"



to the readings expecting it to be my father. When I told them he was a randomly employed blue collar reservation alcoholic—the shock on their faces. It's a small American tragedy, replayed on reservations to this day.

**Native Americans came out for Obama in '08. What about this time?**

I think it's replicating the patterns in the country. The rural vote is Romney, and the urban vote is Obama. We're becoming red and blue inside the Indian world. Either that or Indians are just naturally drawn toward the color red.

**In the two decades you've been writing about it, has life on the reservation changed?**

I've spent very little time on my reservation in the last 20 years. Personally, there's too much pain. It's a haunted place for me. I meet my family in Spokane. I actually think I'm more traditional as a writing nomad than people who never leave the reservation.

**Are you a fan of the casinos?**

No. When an Indian tribe gets a casino, they've officially declared that they've lost the war. It's the final submission.

**Who is your least favorite sports mascot?**

People think this is a minor issue. Put images of Chief Wahoo and Sambo next to each other. This horribly racist depiction of African Americans looks exactly like the mascot of the Cleveland Indians. Exactly. —BELINDA LUSCOMBE

FOR VIDEO OF THIS INTERVIEW,  
GO TO [time.com/10questions](http://time.com/10questions)

TM © 2012 Kellogg Co.

# RASPBERRY GETS A WHOLE GRAIN FIBER BEAR HUG.



## Kellogg's® Mini-Wheats® Touch of Fruit Raspberry.

Whole grain fiber to help keep you full, wrapped around a raspberry flavored filling made with real fruit.



A BIG BREAKFAST  
IN A little biscuit



**290**  
dealerships

have been restyled  
to offer an expanded  
range of amenities,  
including courtesy  
vehicles, full-service  
coffee bars and nail  
salons.\*

## My comfort zone. My Service.

Since my dealership offers everything from a coffee bar and high-definition televisions to computer stations and WiFi, I can work, surf the web or just take some time for myself.\* Best of all, I can rest easy knowing a Mercedes-Benz expert technician is working on my vehicle. A range of amenities to go along with unsurpassed service? That's the kind of comfort level I can get used to. To learn more, visit [www.mbusa.com/MyService](http://www.mbusa.com/MyService).

\*Services offered vary by dealership.  
©2012 Mercedes-Benz USA, LLC



Mercedes-Benz